Automations

V.P. Gibbons Statement
before Comit on Ed.
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# IMPACT OF AUTOMATION ON EMPLOYMENT

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## WEDNESDAY, APRIL 12, 1961

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House of Representatives,

Subcommittee on Unemployment
and the Impact of Automation
of the Committee on Education
and Labor,

Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the Caucus Room, Old House Office Building, Honorable Elmer J. Holland (chairman of the subcommittee) presiding.

Present: Representatives Holland (chairman), Joelson, Garland, and Bruce.

Also Present: Representative Bailey, and Griffin.

Dr. Walter Buckingham, Director of the Subcommittee.

Mr. Holland. The subcommittee will come to order.

Will you give your name and title?

STATEMENT OF HAROLD J. GIBBONS, EXECUTIVE VICE PRESIDENT,
ACCOMPANIED BY: AL WEISS, ECONOMIST,
INTERNATIONAL BROTHERHOOD OF TEAMSTERS.

Mr. Gibbons. My name is Harold J. Gibbons, and I am the executive assistant to the General President of the International Brotherhood of Teamsters.

Mr. Holland. Mr. Gibbons, we welcome you here today.

As you know, we have been having hearings on unemployment and the impact of automation which I think you will agree with me has become one of the largest problems besetting the United States. It has affected our economic life more than any other problem.

We have been asking the people who appear that they state their cases wherever possible to give the effect of automation on unemployment and, if you have any suggestions to correct these conditions, we certainly would like to hear from you because we are going to depend upon the people appearing to give us the solution of this problem.

Go right ahead, Mr. Gibbons.

Mr. Gibbons. We certainly agree with you, Mr. Chairman, on the impact of automation on our economic situation, and we join you in a deep concern for this problem.

I want to say to begin with that we appreciate the opportunity to appear before you today on this issue. We are glad to join with other representatives of organized labor in calling attention to the impact of automation and technological change not only on our membership, but on the economy at large. It is appropriate, I believe, for us, as representatives of workers who bear so much of the costs of "progress" in the form of loss of jobs, shorter hours and reduced income, to bring you their story and to urge that appropriate action be taken not only in their behalf but for the well-being of the entire country because our interest extends beyond the more than one and one-half million Teamster members and their families. It extends to the entire nation -- because this is a national problem.

The committee is examining the impact of automation on unemployment. I prefer to couple the terms "automation and technological change," since from an economic viewpoint automation is but another,more advanced, stage in the evolution of technology. In essence, these terms mean the use of technically improved or advanced machinery, methods of equipment, introduced to obtain greater productivity at less cost, and nearly always requiring less manpower in producing or distributing more goods, materials or services.

As contrasted with mechanization, automation is applicable to a wide variety of industries and work processes. Its potential application is virtually limitless and it is proceeding more rapidly than other technological changes of the past.

Regardless of the term used, the end result for workers is the same: unemployment, total or partial. And for new members of the labor force -- a shrinking labor market in which jobs become increasingly difficult, if not impossible, to obtain.

Economic Background: One of the important aspects of automation at the present time is the circumstances under which it is making its greatest strides. Automation is feared today because it is speeding up and rolling into high gear at the same time that our economy (over the last decade) has been faltering and hesitating. Labor properly feels concern over job security and employment opportunities when joblessness rises from month to month. Certainly, the economic climate seems to hold out little hope for work opportunities.

Unemployment has been higher after each recession. The economy is generating new jobs at a slower rate than the growth of our labor force.

Our population is up; our work force is up; but the number of jobs in the private economy is down. Private industry (as compared to government) is now producing fewer man hours of work than in 1953. To us these seem to be significant facts in any relationship of the trends that are occurring today.

Manufacturing output as a whole has risen 17 percent since 1953 but employment has dropped 5 percent. Bituminous coal output in 1959 was 35 percent below the 1947-48 average; employment was down more than 60 percent. In short, fewer people are turning out more goods. Workers should be rewarded for this, not penalized.

The U. S. Department of Labor expects the labor force to increase by 13.5 million between 1960-70, as compared to 8.9 million in the previous decade. At the present time there is nothing to indicate that enough jobs will be available for the next decade. Only last week Secretary of Labor Goldberg stated that the economy must provide 10.5 million new jobs next year for the country to achieve full employment.

Our economy did not perform too well in the 1950-60 period when there were only 8.9 million new jobs to provide for. There were four recession periods in this decade and the level of unemployment ranged from 6 to 7-1/2 percent of the civilian labor force (including part-time workers).

Attention has been focused on unemployment in the recess periods, but the rising level of unemployment in the non-recession periods has been frequently overlooked. This is so-called "structural" unemployment, which is primarily related to automation or changing technology. In the following "normal" periods during the 1950's, the average rate of unemployment increased as follows (seasonablly adjusted):

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|---|---|
| Early 1951 to late 1953 | 3.1 percent |
| Mid 1955 to mid 1957 | 4.2 percent |
| Early 1959 to mid 1960 | 5.3 percent |

We will show also that the so called normal periods appear to have become progressively shorter.

In 1950, for the first time, service workers outnumbered workers in the production industries (manufacturing, agriculture, construction, mining) -- 51 percent to 49 percent. By 1960, employment in the service industries group had risen 55 percent. The trend will undoubtedly continue in the 1960's.

The important point about this shift is that, in a period [illegible] recession, services are the first thing to be sacrificed.

We were fortunate during the 1950's in that job opportunities were available in government, in trade and in service industries. They made up, in part, for declining employment in manufacturing, mining, et cetera. But we cannot [illegible] that the service and trade industries can continue to absorb excess manpower from declining industries as well as provide jobs for new workers.

Employment expansion will not, as I see it, match our population or labor force growth. Employment expansion in retail trade cannot meet the expansion in population served, in view of the development in chain stores, supply and merchandising that has characterized the 1950's. Distribution employment -- the hard core of Teamster membership -- [illegible] grow absolutely, but less than proportionate to population growth, in view of the economies that touch all parts of the supply line, including transportation and warehousing.

It is obvious that only increased "economic growth" can provide enough jobs for an increasing work force in our [illegible] economy where day by day greater production is turned out by fewer workers. This means really only one answer, increased purchasing power to buy the products of industry.

As long as our economy expands, automation's impact on employment will be softened. We believe, therefore, that the only possible orderly solution to automation's impact on employment is increased economic growth, so that displaced workers can find other jobs and that new workers will also have jobs. Only then can we attain a satisfactory degree [illegible] full employment.

The Role of the Union: We recognize that progr[illegible] productivity and efficiency are a prerequisite [illegible] the welfare of our members and the industries which employ them. As a trade union we do not oppose such improved technological practices or processes, be it in our industry or industry itself. But as trade unionists and as Americans, we consider human beings and human welfare more important than efficiency. The welfare of our people is an integral part of our economic progress. At the same time, we must recognize that people without jobs cannot provide a market for the products or services of automated industry.

We know that there is no self-adjusting labor market mechanism which acts automatically to provide jobs. We believe that it is unjust and anti-social to make workers shoulder the entire burden of "efficiency" or technological change. Rapid and uncontrolled technological change can disrupt the lives of workers and their families and our nation. We must urge that thought be given to programs for reducing the harmful effects of such dynamic growth. We cannot afford to repeat the mistakes of our industrial histo[illegible] costs are involved. No technological change which is [illegible] expense of workers is true technological progress. We cannot afford to sell out human values simply to get more [illegible].

In essence, what we are asking for is a [illegible] degree of social responsibility by industry, to weigh the human costs of displacement. Workers' and unions' acceptance of such change is based on assuring workers some degree of employment and income security, and a share in the benefits flowing out of such change -- in a word, to make the transition as painless as possible.

I could add to that statement that, in addition to calling for a higher degree of social responsibility on the part of industry, it seems to me that, if we [illegible] to meet the problem adequately, it is going to call for new and increased responsibilities in this whole area on the part of the Federal Government.

There is a cultural lag -- in that [illegible] resist change. Social and economic progress is not automatic. It is the responsibility of officials in the labor movement to implement changes through our inherently democratic institutions so as to make sure that our people are not [illegible]. This is our role -- and we cannot and will not shirk it.

It is this apparent conflict between economic efficiency and social justice which our society must solve if we are to avoid economic and social catastrophe. Your committee is faced with a great challenge. You may count on our good faith and cooperation in doing whatever we can to assist in the solution of this problem.

The Teamsters' Union has cooperated with our employers in achieving efficient operations. Leading spokesmen in our employing industries have stated on many occasions that the Teamsters' Union takes "a reali[illegible] commendable perspective of the values of transportation automation"; that "the leaders of the Teamsters recognize that these restrictive conditions and featherbeds are harmful to the industry..."; that the Union "is exercising the judgment of responsible unionism."

We do not resist automation, [illegible] we want to cushion its effect on labor. From labor's point of view, we want to reconcile, so far as possible, the continual growth of automatic technology with job security. We wish to alleviate the hardships of those displaced by automation and to protect the employment opportunities, earnings and work conditions of those retained on the job.

We have attached to this statement three reports describing technological developments in the following industries: trucking; fruit and vegetable canning and preserving; and dairies.

On the basis of the employment [illegible] productivity figures shown in these three reports, it is [illegible] to conclude that mechanization and technological advances have outstripped the creation of new jobs. Employment is not increasing to the same extent as the output of these industries.

Increased weight and size of trucks and mechanical equipment has increased the productivity of the individual driver. Years ago a horse and wagon required a 10-hour day to move only 10 tons of earth. Today a driver operating a 10-ton dump truck can move 320 tons of earth in two hours less working time at one-fourth the cost per ton.

In warehousing the use of electronics, selection mechanism, automatic conveyors and automatic loading and unloading equipment have been [illegible] with other advances to make operations at new warehouses largely automatic. Warehousing has been marked by the development of unitized loads, roller and chain bed trucks, [illegible]ed pallet adapters, palletizers, depalletizers, conveyor systems electronic sorting, and a whole series of electronic devices.

Inventory data processing eliminates much of the manual paper work in warehousing and increases the use of machines in record keeping.

The total result [illegible] fewer jobs.

Automation has permitted present workers in the industry to produce more per employee. At the same time, the greater output or productivity by permitting the same or fewer workers to produce more, means that the industry does not hire [illegible] workers. This produces what might be called the "iceberg" effect -- unemployment which is not attributed to any particular industry but which is generalized. Employment opportunities do not exist for those entering the labor market or for those losing their jobs in other industries. This has been true even in the trucking industry which has shown marked growth over the past few decades -- [illegible] growth sufficiently rapid to counteract diminished [illegible] opportunities stemming from automation.

Other unions and their members have undoubtedly suffered to a far greater extent. We join with them, and with the rest of the American labor movement, in stressing that it is time to take action on several fronts to do something for the victims of automation-created joblessness. Without a sharper rise in jobs than has been taking place in recent years, our unemployment problem may well become a nightmare.

We should like to present to this committee a film entitled, Wonders of Automation, filmed in California's Imperial and Salinas Valleys. This 25-minute film portrays in vivid color the story of what changes and mechanization have caused in the produce industry.

Shown is the [illegible] machine in existence which combines harvesting with processing to send carrots off to market within ten minutes after they are pulled from the soil. This highly mechanized unit moves at a constant eighth of a mile an hour through a field, gulping carrots at one end and expelling them at the other in cellophane packs -- you find them at any supermarket -- in an incredibly short time. This is a monstrous machine which actually eliminates one complete phase -- the conventional processing installation which normally is a permanent facility located in the nearest community anywhere from five to [illegible] or more miles from the field being harvested. For the purposes of contrast, the film shows such a permanent processing shed, along with the old way of harvesting.

Another [illegible] of the film treats with harvesting and processing of [illegible] lettuce. Hand-cutting of the lettuce contrasts with [illegible] machines which stitch cardboard cartons into which the produce is packed for hauling by truck to the nearest cooling center, located some miles from the field. Automation really begins at the cooling center where a huge fork-lift, in one speedy maneuver, unloads 320 or more cartons from a truck in a matter of seconds. A network of conveyors within the [illegible] eliminates all human manpower except the hands of a half dozen workers in the essential process of chilling the lettuce and loading it into refrigerated trucks or railroad cars to be sped off to market.

We hope that this film will be helpful and instructive to this committee and to its staff, in showing the application of technology to some of the industries and operations in which our members are employed. The film also makes clear the many [illegible] in which mechanization is displacing workers.

National Economic Policies Must Support Collective Bargaining on Automation: Collective bargaining -- our trade-union tool -- has developed a variety of solutions to automation: greater wage increases; guaranteed employment on a year-round basis; shorter hours with no loss in take-home pay; broader seniority rights including preferential hiring rights for laid-off workers; retraining displaced workers at company expense; dismissal pay; improved pension plans, including earlier retirement and vesting of benefits after relatively short period of service; et cetera. These collective bargaining provisions constitute, in essence, a form of social cost of automation for industry. They call for a high degree of social responsibility by management.

The collective bargaining arrangements between a company or an industry and a union are essentially only shock absorbers or stop gaps. They constitute merely the first line of defense against automation unemployment. Essentially they are designed to cope with the problem of "temporary" unemployment, rather than a situation where a man's job literally disappears under automation.

Unfortunately, collective bargining contract protections cannot create essential job opportunities. Collective bargaining alone cannot cope with the tremendous pressures of automat[illegible]ced unemployment. The complexity of the problem calls [illegible]n effort beyond that of any single union, single company, single industry, or combined labor-management effort.

Labor and management should continue to seek solutions to [illegible] labor problems flowing out of automation. But these pr[illegible] solutions, in the final analysis, can only be limited and [illegible]ry.

Collective bargaining affects only a fraction of our total economy. Other factors -- tax, monetary credit, and fiscal policy, et cetera -- are more far-reaching in their consequences. We must therefore develop a proper national economic and social environment to make the achievements of collective bargaining and labor-management cooperation successful.

National full-employment economic policies are called for -- both to generate jobs and to sustain purchasing power. As stated by the editors of Fortune earlier this year, "The vital task ahead is one of job creation, and the vital energizing currents here are national not regional in scope."

If technological progress is to be orderly, we must tackle the unemployment problem promptly on a national scale. The national well-being requires it; the confirmed existence of our present social and economic order demands it. Full employment must be our goal if we are to avoid the nightmare problem of displacement and adjustment created by technological "progress."

This calls for effective implementation of the Employment Act of 1946 so as to provide a constantly expanding economy. We need increased consumer purchasing power to match our growing productive capacity and increased business investment to further create employment and stimulate consumption.

We need allied programs consisting of wage supports, tax measures, training and retraining programs, relocation subsidies, and other security guarantees to technologically displaced workers and their families. But above all, there must be a job at the end of the line for those willing and able to work. Otherwise, the best social insurance systems and retraining and placement resources are of little use. This is why the full employment goal must be the capstone of our national policies.

In spite of our vaunted American standard of living, there are still millions of American families living on substandard incomes. In spite of our vast wealth, the gap between need and fulfillment in the public sector is enormous -- in education, health, slum clearance -- public housing -- metropolitan redevelopment, and preservation and development of natural resources. When we build school classrooms, hospitals, public housing, and all the other things our people need, private industry will have more business and people will have full employment.

As a nation, we have to adjust our thinking to an age of abundance, rather than scarcity, and automation helps to supply that abundance. Automation can be used to serve men and to free men. But if workers lose their jobs, or are never hired, because of automation, then the central purpose of our economic activity, a democratic society, is defeated. Economic progress must be equated with human needs. For this, we need a constantly expanding economy, to absorb both new workers and those displaced by technical advances. Full employment is the answer.

Unless workers' buying power advances as productivity increases, the economy will produce more than consumers can buy. Economic prosperity can be assured only if wages continually rise as the nation's productive power expands. Without a proper balance between production and consumption, full employment and prosperity are impossible.

Surplus wheat can be stored. Surplus workers -- and this is what automation is creating -- cannot. Our members are not accustomed to eating on a long-term basis. Their bills have to be paid today. They cannot obtain credit on the expectation of a job two years from now. All they know is that their jobs are evaporating and they are left high and dry.

People can't buy unless they work. Industry can't sell its products and services unless people have money. Industry looks to the consumer to keep the economy going. Eliminating people who make a product eliminates the market for this and other products. One cannot produce wealth with machines alone.

If we can develop crash programs for missiles and exploration of outer space, we can and must plan to solve the problems flowing out of automation. We must devise and develop tools to wipe out the specter of chronic unemployment, the sentence of economic death. Our natio faces no challenge so great if we are to maintain the stability of our economy and way of life. If past policies and methods are inapplicable to today's technology, let us devise new ones.

Why should we have full employment only in time of war? Certainly in time of peace there is work to be done -- job-providing work -- to improve the well being of people and the nation. Let us set our sights for abundance, not scarcity. Let us gear our policies for full production, not under-utilization of capacity and facilities. Let public investment join private enterprise in supplying people's needs.

The basic answer to the problems created by automation lies in the prosperity of our country. A booming economy is needed to keep everyone -- except the fractionally unemployed-- at work. We definitely need to buoy up our economy. Let us make a reality of the Employment Act of 1946. If our economy is faltering, any solutions to the unemployment problem -- whether automation-created or otherwise-- are bound to be ineffective.

We suggest and recommend the creation of a National

Commission on Automation Unemployment composed of representatives of labor, industry, educators and the public, to study the impact of automation on our economy and to develop plans and programs to minimize its impact on workers, communities, and the nation. Unless we have the necessary research for realistic long-range planning, major dislocations will take place in our economy with resultant disaster to our human and economic resources.

We fully endorse House Bill 1766.

Such programs must be put into action as soon as possible. As I have already indicated, collective bargaining alone cannot shoulder the entire burden of coping with automation's problem.

We believe that such a Commission should consider, at the very minimum, the following measures:

Strengthening and broadening unemployment insurance coverage so as to meet the most pressing immediate financial needs of the displaced worker and his family;

Lowered retirement age under Social Security;

Redevelopment of depressed or declining areas;

A higher minimum wage;

Training centers operated in conjunction with our schools and State Employment Security offices to provide job training for young workers coming of age and for men displaced by technological change, to adapt them to the shifting job trends and occupational qualifications;

Relocation subsidies and other security guarantees to workers permanently displaced by reason of technological changes;

Strengthening the public employment service.

Certainly, our tax and monetary policies should be reviewed to assure that they are stimulating economic growth and job-creating potential.

We need a national economic policy. We need a massive attack on all aspects of the automation problem, by the combined efforts of government, labor and industry. We need to coordinate all our efforts if we are to forestall a nightmare of mass unemployment. Only by such combined efforts can we develop adequate solutions to this problem and unleash the forces which will assure and increase the future productive efficiency of our economy.

Your committee has a grave responsibility. We wish you well in this task, and we offer you our wholehearted cooperation.

Thank you, Mr. Chairman.

Mr. Holland. Thank you, Mr. Gibbons. We thank you for the film that you presented us.

I will try to arrange to have it shown before the whole Committee on Education and Labor.

Mr. Gibbons. We have left with you Attachments A, B, and C dealing with specific industries in which our union predominates as the trade union, and the impact of automation on the workers in those industries. The whole story is there.

sic

Mr. Holland. They will be included in the report.

Mr. Gibbons. Thank you, sir.

(The attachments follow:)

UPI-107

(TEAMSTER)

WASHINGTON--TEAMSTER UNION VICE PRESIDENT HAROLD J. GIBBONS APPEARED BEFORE CONGRESS TODAY FOR THE FIRST TIME SINCE THE SENATE RACKETS COMMITTEE CLOSED SHOP. ONE CONGRESSMAN SAID GIBBONS "HIT ALL HOMERUNS."

THE LANKY LIEUTENANT OF TEAMSTER PRESIDENT JAMES R. HOFFA TESTIFIED BEFORE A HOUSE LABOR SUBCOMMITTEE STUDYING THE EFFECTS OF AUTOMATION ON UNEMPLOYMENT. HIS LAST APPEARANCE WAS BEFORE THE SENATE COMMITTEE THAT WAS INVESTIGATING THE TEAMSTERS, HOFFA AND HIMSELF.

LIKE OTHER LABOR SPOKESMEN, GIBBONS SAID THE GOVERNMENT, INDUSTRY AND LABOR ALL WOULD HAVE TO WORK TOGETHER TO FIND NEW WORK FOR MEN REPLACED AT THEIR JOBS BY MACHINES.

AMONG OTHER GOVERNMENT STEPS, HE URGED STRONGER UNEMPLOYMENT BENEFIT PROGRAMS, LOWER RETIREMENT AGES UNDER SOCIAL SECURITY, HIGHER MINIMUM WAGES, AND JOB RETRAINING CENTERS.

GIBBONS, WHO HAS BEEN CALLED THE "EGGHEAD" OF HOFFA'S STAFF, LECTURED THE SUBCOMMITTEE ON ECONOMICS, COLLECTIVE BARGAINING AND TAX POLICY. CHAIRMAN ELMER HOLLAND, D-PA., SAID GIBBONS "WENT A LITTLE BIT AFIELD," BUT SEVERAL REPUBLICAN MEMBERS WHO QUESTIONED HIM TOLD THE UNION LEADER "YOU HIT ALL HOME RUNS."

ASKED HIS OPINION OF PRESIDENT KENNEDY'S REQUEST FOR HIGHER TRUCK TAXES, GIBBONS SAID HE HAD "GREAT SYMPATHY" WITH THE PRESIDENT'S PROBLEMS, BUT TRUCKERS ALREADY WERE PAYING THEIR SHARE.

HE SAID KENNEDY HAD "WORTHY GOALS," BUT HIS TAX PROPOSALS WERE MISGUIDED.

REP. ROBERT GRIFFIN, R-MICH., ASKED GIBBONS WHY HOFFA WAS FIGHTING TRANSPORTATION OF NEW CARS BY RAILROADS IF THE UNION WAS NOT OPPOSED TO [illegible] EFFICIENCY.

GIBBONS SAID IF RAILROADS COULD REALLY CARRY NEW CARS CHEAPER THAN TRUCKS, THE TEAMSTERS HAD NO COMPLAINT. BUT HE SAID THE RAILROADS WANTED TO CUT RATES UNTIL THEY HAD A MONOPOLY IN SUCH TRANSPORT AND THEN INCREASE THE RATES.

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Mr. Holland. Dr. Buckingham?

Dr. Buckingham. Mr. Gibbons, I think this is a very enlightening statement which you have made.I have a few questions, if I might.

On page 3 you state that "in a period of recession, services are the first thing to be sacrificed. Do you have any facts or evidence to back this up? The reason I mention it is because we are usually told that, when recession comes, it is the heavy basic industries like steel that are first to shut back, and then the lighter industries, and you get around to the services last. I know that they have already gotten around to the services in this recession but I am wondering if you have any evidence toback up your statement that services are harder hit or hit earlier perhaps.

Mr. Gibbons. What I had in mind in making that statement were several things. For instance, all of the services available to people with income in the way of recreation and resort areas are one of the first thingswe eliminate from our budgets.

Obviously, when things get tight financially, things which we take for granted such as getting our hair cut and our shoes shined, these things seem to be the things which we get rid of rather than the basic things like housing, three meals a day, a suit on our back.

So I say to you that, in periods of recession, services are one of thw hardest and first hit things that we have.

Dr. Buckingham. You said on page 3 of my copy of your testimony that the Teamsters' Union has been the only major trade union which has aggressively kept pace with the giant strides of the American economy since the end of World War II. How do you reconcile this with your earlier statement that services are predominantly hurt? Have you had an aggressive campaign?

Mr. Gibbons. That is exactly the answer. It is new members being brought in to offset the membership being brought in day after day. We have to organize 100,000 new workers to stand still. This is how we have organized through an aggressive campaign to maintain our membership.

I excluded that in my oral statement here.

Dr. Buckingham. Has the Teamsters concentrated in trying to organise the unorganized workers?

Mr. Gibbons. We havein the past three years spent more money for new organisation work in our union, more money in the last three years than we expended in the previous twenty years, I would say. This is the only way we could maintain our position as a factor in industry, competent, able and strong enough to protect the membership which we are privileged to represent.

Dr. Buckingham. I was wondering if your major effort was on the unorganised or whether or not a lot of it was on workers who are already members of other unions?

Mr.Gibbons. No, this is not the case despite anything to the contrary.

To further this question which you raised, the NLRB records will substantiate my statement in that respect, number one; and, number two, there is a certain amount of transition taking place on the part of workers from one union to another constantly and the law of Congress as passed has been to facilitate this so that workers have a freedom to choose those they prefer to represent them. This is in a very small amount a natural phenomenon of the labor movement in any event.

Dr. Buckingham. Here on page 5 you say, "It is the responsibility of officials in the labor movement to implement changes through our inherently democratic institutions so as to make sure that our people are not hurt." Has your union tries to convince its membership that they should adjust to changes? Is this a problem that you have had?

Mr.Gibbons. I quoted from the industry the attitude of the leadership of the Teamsters Union. This leadership attitude is translated into messages to our membership which are policies which are enforced at that level in every instance. It is not arbitrary enforcement but a leadership which, by educational practices and processes, helps your membership to understand that you are not going to win by fighting against a one hundred foot truck rather than a sixty foot; you are not going to win by fighting against a 300 horsepower truck which will average out thirty miles an hour against a dilapidated piece of equipment which will make twenty miles an hour; and all of the things such as the merry-go-rounds which are installed.

These are the things which we are meeting in our stride every day through bringing to our membership adequate understanding of the need for such economic progress.

Dr. Buckingham. If you have done this, and I do not doubt that you have from what you say, this, of course, is a very commendable thing because it is difficult for any kind of democratically elected organization to get too far ahead of its membership in trying to convince them that certain changes are for the good rather than for the bad.

An individual is likely to see his job affected and think that the whole world should stop.

Mr. Gibbons. There is a philosophy of leadership which in effect says, "There go the people. I must follow them for I am their leader.' We reject this concept of leadership. Under President Hoffa, we are taking the initiative in instances wherever this problem presents itself to get out and work with our people and bring the kind of understanding to them which will result in the acceptance of this technological change which is besetting our industry as well as all other American industry.

Dr. Buckingham. I wonder if I may ask a few technical questions. You state on page 11 that full employment must be our goal. I think that everybody who has testified before this subcommittee from management, labor, and universities have all said this. We have tried to ask them what they mean because there are a lot of different definitions of full employment.

In most Western European countries they have managed to maintain an unemployment level of something like two percent without inflation.

We all recognize that there is going to have to be some unemployment because people are changing jobs all the time so that there is no sense in talking about 100 percent full employment.

Dr. Samuelson, who was here a couple of weeks ago, talked in terms of 3 percent as being a maximum level of unemployment consistent with full employment.

The President's Council of Economic Advisers is talking about 4 percent. I have heard others talk about 5 percent.

What would be your view on that?

Mr. Gibbons. Well, I am not interested in getting into a number game especially but one of the things which scares a person today looking at our economic situation and the legends of it is the easy acceptance we are getting to the 4 percent figure. We say to you that the 4 percent is not a legitimate figure in terms of full employment. We would much prefer to go back to the 2 percent figure which was once current.

What we are further concerned about is that, while 4 percent is accepted today, tomorrow we will be accepting 6 and the next day 7 percent as legitimate transitory type of unemployment. Just the additional 2 percent, let alone anything else which comes into acceptance, this adds upto tremendous personal tragedies throughout America. In a country which should be able to afford that kind of economic setting which would preclude such personal tragedies this is going to simply increase them. At least the trend will be to an ever increasing number of these personal tragedies which these economic figures actually represent when you go one stepbeyond them and not concentrate just on figures.

Mr. Holland. I happen to know that your union did not object to the increase from two to three trucks. I know it for a fact because I voted against it. You did a good selling job to your employees. I appeared before some of the unions to defend my stand on not increasing it. This was in Pennsylvania when I was a State Senator. You did a wonderful job of selling this idea to your employees.

What do you think of the 32-hour week?

Mr. Gibbons. We are not at all sure that alone this represents any answer. One of the problems we foresee immediately in terms of a shorter work week is an increase in moonlighting, among other things. The wage levels of our country today are not such as to preclude a man's desire to seek additional employment once he has completed a day's work. If you could reduce the work week without cutting down on the income and in addition put some kind of a penalty on moonlighting, such as any employer employing a person after he has worked at least 32 hours a week must pay him time and a half, if you put something of this nature into a law which now becomes difficult of enforcement and becomes a complicated thing, then maybe you have an answer and maybe the 32 hour week will make a contribution.

Mr. Holland. Does that apply to gypsies in the trucking business?

Mr. Gibbons. I say it is a very complex thing in terms of enforcement. In terms of gypsies, I do not know how you would apply it. We have many a person working in a warehouse 40 hours who will push a cab for five or six hours a night or take a second job in a spaghetti plant or some other form of employment.

We are not excluding, incidentially, the concept of the shorter hour work week because we think eventually we are going to come to that.

I think we should come to it in terms of greater cultural and recreational opportunities for the people of this country.

Mr. Holland. I have one other question: Do you think it would be advisable to spread out the work by taking trucks off the highways on Sundays?

Mr. Gibbons. No, I do not think that this represents a spreading of the work. I think this would be a penalty such as the trucking industry could not afford especially if the trains are rolling and the planes are flying and the boats are moving; but I would say to you that one way of spreading the work might be in terms of enforcing or gaining greater numbers of vacations in a given year. Maybe we will get two 3-week vacations in the course of a year. Maybe we will get eleven paid holidays instead of five. Maybe we will get certain other opportunities for people to get away from the job without loss of income.

Mr. Joelson. Mr. Gibbons, on page 10 of your statement you discuss the solutions to automation that are to be arrived at by collective bargaining and one of them is greater wage increases. How would greater wage increases institute a solution to automation?

Mr. Gibbons. These items which are listed in connection with the solutions I intended to qualify later by saying that the things which the trade union can do are not truly the solid solutions to the problems facing us. I think it calls for much wider policies and practices in the field of economics to solve this problem.

On that one issue that you did pick up, let me say to you that I had occasion to read recently an editorial in the New York Times which, after analysis of the problem facing America, points out that the only answer to meeting the problem of unemployment is to have an expanding economy, and it says that the answer to an expanding economy is building the purchasing power of the American people.

I say to you that the trade union movement in its quest for higher wages is contributing to the well being of this country by increasing the purchasing power.

Unfortunately, there are not enough millionaires to buy back theproducts of our mills and factories. The only way industry can expand and the only way we can have this expanding economy is through adequate mass purchasing power and higher wages sought by trade unions is one of the real contributing factors to this.

Mr. Joelson. I do not doubt that, but my question is how would this impede the damaging effects of automation?

Mr. Gibbons. There are no damaging effects of automation per se. It is what we do with the results of automation where we fail, in the face of automation, that the economic impact comes about.

I do not want to do anything which will impede automation as such but, as long as the people are able to buy back the products of automation, we are going to have an expanding economy.

With any displacement of workers through more efficient methods of production, these workers will be immediately absorbed into new jobs if we have this expanding economy.

The only way we can have it is through mass purchasing power. The only way we can have that is through increased wages, so that it is a chain effect in reaction to the thing. But automation is not to be cured. I do not want to cure automation. I want automation to prosper because I think on that basis America will have an ever rising standard of living. The American dream as such that we talk so much about will now have an opportunity to come about if we can truly increase our efficiency.

Aside from these material benefits which go to America, there is an aspect which I have not attempted to develop here which is of tremendous significance to us today in 1961 and into the sixties as the contest with communism, the battle of the east and west becomes increasingly sharp. That is that we cannot meet the responsibilities which are forced on this country because of its world leadership position, a position which we did not seek necessarily but which we are stuck with. We cannot meet those responsibilities unless we have an ever-expanding, thriving, healthy domestic economy.

There are sheer economic burdens placed upon us through that job that we have taken on, that responsibility which is ours whether we like it or not and which cannot be met by this country unless we have this kind of an expanding economy, this kind of a mass purchasing power as a base for a healthy and growing economy.

Mr. Joelson. I just want to state that I agree with you as to the need for an expanding economy but I do not necessarily see the relationship between high wages and the elimination of the hardships of automation.

Does the Teamsters Union have any minimum wage below which they will not negotiate a collective bargaining agreement?

Mr. Gibbons. No, we have to, as all unions must, consider the economic setting in which we sit down to negotiate wage increases. Where we are dealing with a healthy, growing, expanding, financially sound industry, we can expect and obtain and fight for a particular wage.

On the other hand, in a given situation where these factors are not present, we cannot do that in other industries.

For instance, one of the industries in which we find difficulty in obtaining comparable wages to those which we have obtained in trucking is when we get into certain phases of the food industry. We are not able to obtain the same kind of wages and same kind of fringe benefits; but always collective bargaining is tempered by the economics of the situation facing the negotiating team.

Mr. Joelson. I have heard it stated that in metropolitan areas the teamsters have signed certain contracts, not for the teamsters but for production workers in industry, for as little as $1.35 an hour, is that correct?

Mr.Gibbons. No, it may very well be that you will find instances where the Teamsters Union have workers under contract for $1.15. I know of none at the moment but I am not going to say that you do not have particular information in that respect. But, if you do, I will bring you contracts from the ILGW or other unions at a comparable level and this is the problem. You start organizing and negotiating contracts for dress workers in the distressed areas of West Virginia or Pennsylvania and you are not going to be able to walk in there and get the same rate for a girl working on $1.49 dresses as Dubinsky may get when he is operating in the garment district in New York in another phas of the same industry. If you will find a $1.15 rate in the Teamsters Union, I will be amazed and surprised; but, if you do, it happens that in the particular environment in which you found that rate you will find justification for it or it will not be a Teamsters contract.

Mr. Joelson. In all fairness and all candor, I want to say that I have heard this and maybe I should not state it as a fact. I did not say this to debate with you. I wanted the information.

Mr. Gibbons. You see, there are marginal industries and there are marginal companies, and, if you find a $1.15 rate, it may represent a 40 cent increase in wages which these workers obtained as a result of joining the Teamsters. It may represent a 15 cents an hour increase which is a substantial gain for those workers from where we found them. You will find that they are probably newly organized if such be the case.

We just came through some negotiations in the twelve Central States with a trucking contract for the twelve Central and some eleven Southern States. There the employers came in to say that we were not entitled to higher wages and compared them with the wages paid steel workers and auto workers and with wages paid in general manufacturing in those States; and, in every instance, the employers demonstrated by good sound statistics that our wages were way up, that our people were earning $9,000, $10,000, up to $18,000 a year, our truck drivers. We are proud of our wages in the Teamsters Union and will be proud to lay our contracts beside any in America, and our practices likewise.

Mr. Holland. Mr. Garland?

Mr. Garland. Mr. Gibbons, what is your definition of productivity?

Mr. Gibbons. Productivity is the production obtained in a given time period by a given effort expended.

Mr. Garland. Man hours?

Mr. Gibbons. Man hours or machine, as it were. It is really a product not so much of the physical labor that is put in. It represents basically a money investment increase. This is the thing which we talk now. I forget the Government official who sees ninety billion dollars' worth of obsolete equipment in the American economy. We are talking about automation that is only beginning, and the crime is that I sit here trying to be an expert on automation and neither I nor any one else in this country knows what we are talking about because no one has the figures on automation. This is a terrible crime about one of the most serious economic problems facing us that nobody literally has the facts. I think it is only beginning and I think that there is going to be a tremendous growth in this particular area and I think it is the beat thing that can happen for America; and, if it does not happen, we are in serious trouble on the international front.

Mr. Garland. You say in essence that economic prosperity can only be assured if wates are continually increased as our productivity increases.

Mr. Gibbons. I did not necessarily say that this is going to result or this is the only way you are going to arrive at this result. I say to you that we have a right to participate in the progress that is being made. We do not think, for instance, that industry has the right to garner unto itself all of the benefits of increased productivity. We think the workers have a social right to share in it and we think the consumers of America have a right to share in the particular progress through lower priced products. We fight just as hard for that as we do for the wage increase that we think should come out of automation and we think that the investor should get a return for the increased investment he makes.

We do not think that industry has any right, legal, moral or otherwise. which would give them the right to take completely the benefits of automation and technological improvements. This is a social product, not the product of any one man's mind.

Mr. Garland. Do you recognize that industry does need to have these advantages?

Mr. Gibbons. They have to if they are going to re-invest, absolutely, and we think the key to continued economic progress is the reinvestment program. That is why we talked in terms of reviewing the tax laws. That is why we talked in terms of reviewing our fiscal policies, and our credit establishment. All of those should be integrated into a well-rounded financial aspect for this country which will provide an America that will stand up in the international front and assume all of the burdens with which we are faced. Specifically we call in here for, in addition, the "increased consumer purchasing power to match our growing productive capacity." We need "increased business investment to further create employment and stimulate consumption." This is a basic and vital part of any economic program.

Mr. Garland. You advocate tax reforms, do you not?

Mr. Gibbons. Well, I say to you that we should take a good look at the present tax policies in an effort to see where they fit and how most intelligently they may need to be altered to contribute to this basic goal of an expanded economy and a prosperous America.

Mr. Garland. These goals that you call for in your statement here this morning all involve further Government spending and increased Government spending.

Mr. Gibbons. It does not necessarily call for increased Government spending.

Mr. Garland. I refer to the program on the last page there.

Mr. Gibbons. It calls for expenditures in the public sectors of our economy, yes, sir, as one of the ways in which we can create jobs in the face of a declining situation on jobs and one of the ways in which we can stimulate private employment. This, I think, is a unique economic fact, that it so happens that the private sectors of our economy are providing the least numbers of jobs in America.

We talk about the vaunted private enterprise system. Today it is providing a decreasing number of jobs.

This is not a situation which one can be proud of. This is a situation which can only lead to catastrophe in terms of a private enterprise system if it is permitted to continue. This is the thing which concerns us. If this involves spending Government money, I am not averse to that. We do not run away from that, but we are not particularly putting our whole case on the base of just sheer spending of money on the part of the Federal Government.

One of the things which is an end product of Government spending at the moment could very well be this expanding economy with the resultant increased tempo of economic activity, with an increase in Government income literally through lower taxes, with lower taxes; but, when we sit back and let an economic contract, then the burden of Government -- which is not easy to shirk--on each individual citizen becomes tremendously greater and on each individual business becomes a greater and greater burden; so that, if we can once get this ball rolling and break out of the shackles which we are currently bound by, we can ease the taxation problem of business which faces us today.

This can become a rapidly moving thing which will carry of its own weight.

Mr. Garland. What are these shackles to which you refer?

Mr. Gibbons. The shackles are this tremendous mass of unemployed workers of this country. They are not going to lie in the streets of America and die. America is going to have totake care of those workers, take care of those kids. They are going to have to feed and clothe them and provide housing. In every community today it is taking place. They just reinitiated in St. Louis, my home town, the free food system. This is going to be paid for out of taxes. This is one of the shackles which I say to you today is burdening industry and reducing its capacity to move forward on the creation of new jobs and expanding employment opportunities, of meeting its responsibilities to the American people to provide for an ever increasing standard of living. This is a responsibility of industry, a responsibility which industry cannot shirk. Today it has these difficulties to cope with.

We are here trying to say some things which might, if implemented through Government action, help industry meet these problems which face it and aid and assist our whole country.

There is nothing of merit in a shrinking company. There is nothing there but the creation of new and more difficult social and economic problems day by day. They breed them.

If we can reverse this trend through some of the policies we advocate, then you have easy solutions to a lot of difficult problems which face us as of today. It is a matter essentially of almost changing our thinking from an economy of scarcity to an economy of abundance.

We have solved largely the problem of manufacture, the production of goods.

It seems to me that we should concentrate a little more now on seeing to it that we solve some of the bottlenecks of distribution of these goods.

Mr. Garland. Mr. Chairman, I will yield the rest of my time to Mr. Griffin.

Mr. Griffin. Mr. Gibbons, I read with interest on page 6 of your testimony that "We do not resist automation," speaking of the Teamsters Union. Yet a good many of us have been reading in the papers lately about the fact that the railroads apparently have developed a system for carrying new automobiles which seems to be in some people's mind more efficient than some of the methods that have been used.

We have been reading about the fact that apparently some acid or something was thrown on new automobiles in Pennsylvania.

We cannot determine apparently who did it, but we do hear that Mr.Hoffa in his concept of leadership is fighting tooth and nail the use of the piggyback method in the new development of railroad cars to carry new automobiles.

This does not seem to square with your statement that the Teamsters do not resist automation. Perhaps you could elaborate on that.

Mr. Gibbons. You are entitled to be enlightened on it because, obviously, there is a lack of facts in your discussion at the moment when you discuss it in the terms that you have.

Mr. Griffin. I would be glad to be enlightened.

Mr. Gibbons. Number 1, we are not opposed to the railroads, if they are a more efficient carrier, carrying automobiles. We are protesting and we are endeavoring to get Congress to investigate the question of whether or not the present members of the ICC havw not distorted the intent of Congress in legislating in that area by permitting the railroads to violate the ICC regulations by selective rate-cutting to the detriment of competitive forms of transportation.

Now, it is quite simple for the railroads with their tremendous capital investment to take on the hauling of new automobiles in this country and continue it for a year or two years if necessary at rates whichrepresent a heavy loss to those railroads and then, once they eliminate the highway automobile-carrying industry, they will now take those same rates and push them back up like they have done with many other items of freight which railroads are particularly adapted to carry.

What they are doing today in America in the new car hauling business is utilizing their out of pocket expenses literally to establish the rate which they are now charging, and undercutting the trucking industry.

We have no quarrel, and I repeat it and we will say this anywhere, we have no quarrel with the railroads carrying the automobiles as part of their freight load if it is done on a decent level, a competitive basis, but this is not serving the trucking industry. It is not serving our members and it is not serving America to permit this kind of distortion of the intent of Congress in the application of the ICC regulations in this specific instance.

Mr. Griffin. Then it is fair to assumethat, if Congress does review the railroad practices as far as their rates are concerned and the application of the ICC rules and regulations and finds that they arenot abusing them, that then the Teamsters will no longer resist this automation.

Mr. Gibbons. Well, if it is determined that the railroads are entitled to carry new automobiles based on efficiency and as a result squaring completely with America's transportation program, the ICC law which provides for a balanced kind of transportation industry with proper consideration for trucks, airlines, railroads and water movement of freight, if this is found true, we will say Godspeed to the railroads. They can have that freight. But we are giving you everything we know about this problem, and we have investigated it very thoroughly and are joined by top members of Congress in this concern. Senator Monroney from Oklahoma is one of the people who is concerned likewise about what is happening to this industry.

We are concerned about this and we are joined in this by good people and think we are one thousand percent right.

I say this to you, and I represent President Hoffa and this is his attitude toward this problem as well as mine. It is an enlightened attitude, an intelligent attitude, and an attitude that is good for America.

Mr. Griffin. Mr. Gibbons, you have in your discussion of automation talked a good deal about organizing the unorganized and about your methods of increasing wages and so forth. A good many people in the United States are concerned about reports that the Teamsters in their contract negotiations are driving toward a goal of having all contracts as far as transportation is concerned controlled by the Teamsters, expire on the same date.

Mr. Holland. I am sorry,but I am going to have to call you out of order. We are studying automation. We are not studying the contracts and the effect of driving anyone out by prices.

I think that we should consider the subject that we are studying, and that is automation.

Mr. Griffin. I have no further questions, Mr. Chairman.

Mr. Gibbons Mr. Chairman, I want the record to show that I would have been very happy to have discussed that question if it had been permitted.

Mr. Holland. I do not think that we should have other items taken into the subject matter.

Mr. Griffin. That is all, Mr. Chairman.

Mr. Holland. Mr. Bruce?

Mr. Bruce. Of course, as you, Mr. Gibbons, have said, we do not know exactly what has caused unemployment. It is very difficult, Mr. Chairman, to draw a line when we are trying to determine the causes of unemployment and I trust that I may ask my questions covering a broad field to determine certain facts.

Mr. Gibbons, are you familiar with the average margin of profit of the trucking industry in 1960?

Mr. Gibbons. I know it is a very small margin of profit largely across the entire industry. I think this might be true excepting in the heavy monopoly sectors of our economy.

In any of the sectors of our economy where you do not have a heavily monopolized situation you will find a rather wide range of profit margin. Ours, if you were to strike an average, would be a rather low margin of profit.

Mr. Bruce. We as members of Congress have received a message from the President concerning financing of the highway program and I believe, Mr. Chairman, this has a direct relationship to automation because anything that could conceivably cause industry to move more rapidly into the field of automation would directly have a bearing upon our studies.

You are familiar, no doubt,with the recommendations made by the President on taxes toward the truck industry.

May I ask you, sir, do you feel that this would complicate the employment situation if these taxes would be enacted as proposed by the President?

Mr. Gibbons. Let me first preface my remarks by saying that I have great sympathy for the President of the United States today trying to work out solutions of the manifold problems which face our country. I do not want to be too arbitrary in disagreeing with any proposal he may want to make. I want to view it as sympathetically as I can, but I would disagree with him on this one because, number one, we feel that the industry itself is more than meeting its burden of taxation in terms of highway construction and maintenance. We think, secondly, that an additional burden placed on the trucking industry is going to have serious economic impact on the trucking industry to the detriment of our country and to the defeat, literally, of the goals, the worthy goals that the President is striving for.

We do not think that this is the answer. We are not rejecting out of hand anyconsideration of increased taxes by our industry but we will be very happy to send you a broader statement on this subject which is in the form of testimony which we gave here before one of the congressional committees specifically on this question.

Mr. Bruce. But your feeling is that, if the recommendations were approved as given in the message from the President, that it would create unemployment in the trucking industry. Is that your testimony?

Mr. Gibbons. Yes, it would be unfair and would have a bad economic impact.

Mr. Bruce. Do you believe that nonmonopoly is a factor in unemployment?

Mr. Gibbons. I think that monopoly is a serious problem in terms of employment opportunities in this country for the American people. I think it borders on the ridiculous when an industry like steel is able to make a profit operating at one-third of its capacity. There is something wrong with the pricing in that kind of a situation and this pricing is not only resulting in unemployment where they can sit back and not grow concerned about their productive capacity but in addition I think it becomes an economic burden on other industries which this steel industry is serving.

What I am saying about the steel industry in terms of monopoly practices applies across the board in all sectors of our economy which are heavily monopolized.

Mr. Bruce. Mr. Gibbons, what other union represents the trucking industry besides the Teamsters Union?

Mr. Gibbons. Literally we tend to dominate the field pretty well, especially in what we call for-hire or commercial trucking. We likewise do even in terms of private trucking, but you will find that, in the automobile industry, General Motors may have 150 in-plant trucks. Those will be driven by members of the Auto Workers Union.

You will find in the rubber factories some rubber workers driving vehicles.

Mr. Bruce. Is it not true that, as far as the truck transportation industry across the country, you are almost alone in the field?

Mr. Gibbons. Almost alone, I would say. I know of none unless it is an isolated independent union here or there who may have a single commercial trucking firm.

There is one big independent, incidentally, which Al Weiss to my mind, in the city of Chicago, called 705. It used to be
??? a section of our union. It split off in the far past and it still remains today an independent union, working very closely with our organization.

Mr. Bruce. You could reasonably assume then that actually the Teamsters have a monopoly on the trucking industry?

Mr. Gibbons. I would not use the word "monopoly" because it is a distortion of the English language to use the word monopoly in terms of human beings and trade unions in the same sense that I used it in terms of an industry.

It is one thing to say to a thousand pounds of cement that "You sit in that warehouse and stay there" and thus monopolize and be in control of it. I want to see somebody do that with a thousand truck drivers. I have been in their meetings.

Mr. Bruce. So have I.

Mr. Gibbons. They are not about to be monopolized by Gibbons, Hoffa, or anyone else in this country. They are free born Americans, very aggressive generally, with good minds and a real concern about their independence and their freedoms.

Mr. Bruce. Your national union does have a final say on contracts, does it not?

Mr. Gibbons. No, we do not. Specifically by constitution which is enforceable in any court of the land by any individual member we are prohibited from telling a member what contract he will take, whether he will go on strike or when he will end his strike.

Mr.Bruce. You do not, for example, Mr. Gibbons, move union leaders from St. Louis, for example, to other areas of the country where there is a negotiation under way?

Mr. Gibbons. Certainly we utilize whatever skills are at our command and go into the universities and get people to help us and assist us in representing our workers.

Mr. Bruce. You do throw, as far as bargaining is concerned, the full weight of the national Teamsters Union into any given area if it is necessary?

Mr. Gibbons. I wish this were true. Unfortunately, it is not necessarily true. It is not too easy to mobilize entire resources. But by and large the statement is correct that we try to mobilize whatever strengths in terms of the representation of our people wherever that happens to be.

Mr. Bruce. You made a statement on what we term moonlighting a while ago. When, let us say, we have a 32 or 30 hour week and you put a penalty on the individual, are you not curbing his very basic initiative? Are you not going contrary to human nature in that type of thing?

Mr. Gibbons. Well, of course, if we want to live in a civilized society all of us must give up certain of our rights. Otherwise we revert back to the jungle. Therefore, you have to evaluate what restrictions society places on an individual. Whether we like it or not, if we decide to be civilized we are going to have to put up with this. I do not believe that making an employer pay time and a half for a worker who has already finished a full work week is curbing that worker's right. It is making possible job opportunities for men with families, hopes, aspirations, giving them an opportunity to make a dollar and be able to live. This I think is a good which far outweighs any penalty which we might place on an individual in the way of restrictions and that is the rationale of all restrictions in society. It is trying to compare what we will sacrifice for a higher good.

Mr. Bruce. I am coming back to what Mr. Garland questioned you about a while ago. You say wages must continually rise.

Is it necessarily related that increased wages mean increased purchasing power?

Mr. Gibbons. I did not say that they must continuously rise. I think increased wages are certainly called for at the moment but it does not follow in terms of good economics that increased wages will result in increased purchasing power. Unfortunately the history of economics in this country is that prices ride the elevators while wages climb the stairs, and sometimes, while there is an ever increasing wage level, there can be a lowering actually of consumptive power on the part of the workers. He may be robbed in the process and this we are opposed to.

In case anyone is interested in it, we are against inflation. We join every one in that position.

Mr. Bruce. Do not your recommendations tend basically to be inflationary?

Mr. Gibbons. No, we are saying that at the moment somebody better buy back the products of industry at an increasing rate or there are not going to be ten million new jobs, which is the hope of Secretary Goldberg. There are not going to be ten million new jobs unless somebody starts buying.

The only way you can buy things in a private economy such as ours is through having effective wherewithal which means money in hand when you approach a store.

The only way we are going to get money in the hands of the employees is to give them jobs. You can hand it out in the form of a dollar but I do not think any of us is going to endorse that as a means of building up purchasing power. That is why I say that it is time to spend some money in terms of wages and creation of jobs in order to get off of dead center where this economy seems to be unless it is already rolling back at an increasing pace.

Incidentally, in terms of this question of inflation, let us not make the error of equating increased wages with increased labor costs. If you want an authority on it, go back to Mr. Charley Wilson, head of General Motors, who cannot be called a labor leader, cannot be called a leftist or a radical or the least bit unorthodox. Here is a gentleman who, when he signed a contract with Walter Reuther providing for automatic wage increases every year, said, "As we give more wages we intend and anticipate and are certain that our labor costs will go down during this period," and this is the important thing we have to remember about increased wages. They do not necessarily result in increased prices. They do not necessarily result in increased labor costs. It becomes a matter now of whether or not we are getting increased productivity. With increased productivity we can afford to cut prices and reduce our costs of operation.

Mr. Bruce. Do you believe that spending in the public sector largely results in increased productivity?

Mr. Gibbons. No, I believe in it as good economics and as sound social justice -- that is what I believe -- and a better America.

Mr. Bruce. I ask you this question.

Mr. Gibbons. And an alternative one might say to unemployment and tremendous economic waste which is taking place in America today, a waste at a cost we cannot afford. If we ever could we certainly cannot afford it today.

Mr. Bruce. For example, where we now have the request for a dollar and a quarter minimum wage, is this not basically the result of inflation, so that we have to constantly look at and have requests to increase the minimum wage. Is it not because of the drop in the purchasing power of the dollar?

Mr. Gibbons. It is a result of inflation which, if you want the answer to, you look to the monopolized sectors of our economy.

Mr. Bruce. All of them?

Mr. Gibbons. This is in a sense part of it and it is in a sense a very inadequate answer to the results of inflation for the low paid workers of this country. It is a very inadequate answer and it is unfortunate that we have to resort to this kind of answer. It should be that everyone should be making enough to provide a decent enough standard of living to be able to say, "Yes, we in America have prospered under our form of Government. We in America have prospered and our needs have been met under a private, capitalist, free enterprise system." But unfortunately, through some of the practices which are common today in industry which are permitted to occur, these bad social conditions exist and we are coming up with minimum wage laws which I say are inadequate and unfortunate but necessary in simple justice to these people who are working today at wages below which they cannot meet the simple costs of the minimum standards of living.

Mr. Bruce. Mr. Gibbons, I have one more question.

What do you think would happen -- and I am going to open this wide open for reply -- if the Congress of the United States took a look at the monopoly situation and decided that maybe labor organizations too constituted a monopoly and passed legislation which outlawed industry-wide bargaining and put it down to company-wide bargaining?

Mr.Gibbons. If Congress were to look at the economic situation in America, especially the monopolized sectors of our economy and then concluded that labor too is a monopoly, I would say that Congress is making a very serious and fatal mistake in its thinking.

I do not believe that Congress will ever come to the day that They are going to consider unions as monopolies.

They may very well come to a day when they will outlaw national collective bargaining. I will hope not. But they will do it for other reasons than that we are monopolies. They will do it because certain spokesmen for big business in this Congress will be fighting shortsightedly in an effort to protect the interests of big business and destroy the effective bargaining power of trade unions which they possess today in the form of national collective bargaining.

Mr. Bruce. Of course, that is a classic defense of anybody that questions union power.

Mr. Gibbons. It is not a classic defense. The nices thing about that defense is that we can point to industries who were sick and who are now well and who for years have bargained on a national basis.

I cite you the ILGWU in the dress industry.

I cite you the Mine Workers.

You show me a healthy prosperous growing industry where national collective bargaining has been barred and I will buy you a package if it represents economic good sense and if it represents something that is good for America.

Mr. Bruce. May I ask one more question?

Mr. Holland. Yes. Keep it on automation.

Mr. Bruce. I will rest.

Mr. Holland. Go ahead.

Mr. Bruce. No, that is all right.

Mr. Holland. We certainly thank you, Mr. Gibbons, for coming here. You have given us a very enlightening bit of testimony and covered the waterfront.

This committee is trying its best, on a nonpartisan basis, regardless of what other people might think, to get at the base of what we should do and what should be done. Our big problem is education, as you know. We have had people come in here who knew automation from one end to the other and we have asked them what we should retrain our people for and they have told us that they do not know.

We are trying to do this. We are having a little trouble, for your information, in getting IBM and the different groups who are creating automation to come before us. I see their point. They say that they cannot divulge what they are working on because it would divulge their hands to their competitors.

I do think that this country has to know what is in the works if we are going to try to bring our schooling up to a standard so that those one and a half million kids coming out of school have an education sufficient to enter the industrial field, and they are not ready at the present time.

We thank you for coming here and we enjoyed hearing your story.

I want to invite the entire Education and Labor Committee to see the film that you have very kindly presented to us.

I think you have faced every problem. You even went a little afield. We were glad we did because they were all home runs.

Mr. Gibbons. Thank you, sir.

Again my sincere appreciation for the opportunity to be with you men and I hope that my statements have contributed somewhat to the enlightenment of the group.

Thank you.

Mr. Holland. The committee will recess until two o'clock today.

(Whereupon, at 11:35 a.m., the subcommittee recessed to reconvene at 2:00 p.m., this same day.)

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ADMINISTRATIVE FILE
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STATEMENT

OF

HAROLD J. GIBBONS

EXECUTIVE VICE PRESIDENT

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

BEFORE

THE

SUBCOMMITTEE ON UNEMPLOYMENT AND THE IMPACT OF AUTOMATION

OF THE

HOUSE COMMITTEE ON EDUCATION AND LABOR

WASHINGTON, D. C.

APRIL 12, 1961

## Automation and Unemployment

Mr. Chairman and members of the Committee, we appreciate the opportunity to appear before you today on this vital issue of automation and unemployment. We are glad to join with other representatives of organized labor in calling attention to the impact of automation and technological change not only on our membership, but on the economy at large. It is appropriate, I believe, for us, as representatives of workers who bear so much of the costs of "progress" in the form of loss of jobs, shorter hours and reduced income, to bring you their story and to urge that appropriate action be taken not only in their behalf but for the well-being of the country. Our interest extends beyond the more than 1½ million Teamster members and their families. It extends to the entire nation -- because this is indeed a national problem.

The Committee is examining the impact of automation on unemployment. I prefer to couple the terms "automation and technological change," since from an economic viewpoint automation is but another, more advanced, stage in the evolution of technology. In essence, these terms mean the use of technically improved or advanced machinery, methods and equipment, introduced to obtain greater productivity at less cost, and nearly always requiring less manpower in producing or distributing more goods, materials or services.

As contrasted with mechanization, automation is applicable to a wide 7 variety of industries and work processes. Its potential application is virtually limitless and it is proceeding more rapidly than other technological changes of the past.

Regardless of the term used, the end result for workers is the same: unemployment, total or partial. And for new members of the labor force -- a shrinking labor market in which jobs become increasingly difficult, if not impossible, to obtain.

## Economic Background

Automation & Recession

The impact of any change is related to the environment or circumstances within which the change takes place. Automation is feared today because it is speeding up and rolling into high gear at the same time that our economy (over the last decade) has been faltering and hesitating. Labor properly feels concern over job security and employment opportunities when joblessness rises from month to month. Certainly, the economic climate seems to hold out little hope for work opportunities.

Unemployment has been higher after each recession. The economy is generating new jobs at a slower rate than the growth of our labor force.

5 Our population is up; our work force is up; but the number of jobs in the private economy is down. Private industry (as compared to government) is now producing fewer man-hours of work than in 1953

Manufacturing output as a whole has risen 17% since 1953 but employment has dropped 5%. Bituminous coal output in 1959 was 35% below the 1947-48 average; employment was down more than 60%. In short, fewer people are turning out more goods. Workers should be rewarded for this, not penalized.

The U. S. Department of Labor expects the labor force to increase by 13.5 million between 1960-70, as compared to 8.9 million in the previous decade. At the present time there is nothing to indicate that enough jobs will be available in the next decade. Only last week Secretary of Labor Goldberg stated that the economy must provide 10.5 million new jobs next year for the country to achieve full employment.

Our economy did not perform too well in the 1950-60 period when there were only 8.8 million new jobs to provide for. There were four recession periods in this decade and the level of unemployment ranged from 6 to 7½% of the civilian force (including part-time workers).

[illegible]ttention has been focused on unemployment in the recession periods, but the rising level of unemployment in the non-recession periods has been frequently overlooked. This is so-called "structural" unemployment, which is primarily related to automation or changing technology. In the following "normal" periods during the 1950's, the average rate of unemployment increased as follows (seasonally adjusted):

| | | |
|---|---|---|
| Early 1951 to Late 1953 | 2 ½ yrs | 3.1% |
| Mid 1955 to Mid 1957 | 2 y | 4.2% |
| Early 1959 to Mid 1960 | 1½ y | 5.3% |

Moreover, the so-called "normal" periods appear to have become progressively shorter.

In 1950, for the first time, service workers outnumbered workers in the production industries (manufacturing, agriculture, construction, mining) -- 51% to 49%. By 1960, employment in the service industries group had risen to 55%. The trend will undoubtedly continue in the 1960's. The important points about this [illegible] is that, (1st) in a period of recession, services are the first thing to be sacrific[illegible] the impact of auto in industry is clearly shown because [illegible] the output of manufacturing industry continued to [illegible]

[illegible] were fortunate during the 1950's in that job opportunities were availab[illegible] in [illegible]rnment, in trade and in service industries. They made up, in part, for [illegible]ng employment in manufacturing, mining, etc. But we cannot assume that [illegible]ice and trade industries can continue to absorb excess manpower from [illegible]ndustries as well as provide jobs for new workers.

[illegible] expansion will not, as I see it, match our population or labor force [illegible] oyment expansion in retail trade cannot meet the expansion in population [illegible] n view of the development in chain stores, supply and merchandising [illegible] ized the 1950's. Distribution employment -- the hard core of Teamster [illegible] may grow absolutely, but less than proportionate to population growth, [illegible] the economies of scale that touch all parts of the supply line, including [illegible] ation and warehousing.

It is obvious that only increased "economic growth" can provide enough jobs for an increasing work force in our economy where day-by-day greater production is [illegible] ed out by fewer workers. This means only one answer: increased purchasing power to buy the products of industry.

As long as our economy expands, automation's impact on employment will be [illegible] tened. We believe, therefore, that the only possible orderly solution to [illegible] on's impact on employment is increased economic growth, so that dis- [illegible] ers can find other jobs and that new workers will also have jobs. [illegible] ly then can we attain a satisfactory degree of full employment.

## The Role of the Union - our immed Concern

[illegible] ize that progress, productivity and efficiency are a prerequisite [illegible] re of our members and the industries which employ them. But as trade [illegible] ts and as Americans, we consider human beings and human welfare more impor- [illegible] n efficiency. The welfare of our people is an integral part of our econo- [illegible] ress. At the same time, we must recognize that people without jobs I.E. purchasing p[illegible] cannot [illegible] provide [illegible] market for the products or services of automated industry.

know that there is no self-adjusting labor market mechanism which acts automatically to provide jobs. We believe that it is unjust and anti-social to make workers shoulder the entire burden of "efficiency" or technological change. Rapid and uncontrolled technological change can disrupt the lives of workers and their families and our nation. We must urge that thought be given to programs for reducing the harmful effects of such dynamic growth. We cannot afford to repeat the mistakes of our industrial history. Human costs are involved. No technological change which is at the expense of workers is true technological progress. We cannot afford to sell out human values simply to get more efficiency.

In essence, what we are asking for is a high degree of social responsibility by industry, to weigh the human costs of displacement. Workers' and unions' acceptance of such change is based on assuring workers some degree of employment and income security, and a share in the benefits flowing out of such change -- in a word, to make the transition as painless as possible.

More Respon
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There is a cultural lag -- in that people resist change. Social and economic progress is not automatic. It is the responsibility of officials in the labor movement to implement changes through our inherently democratic institutions so as to make sure that our people are not hurt. This is our role -- and we cannot and will not shirk it.

It is this apparent conflict between economic efficiency and social justice which our society must solve if we are to avoid economic and social catastrophe. Your Committee is faced with a great challenge. You may count on our good faith and cooperation in doing whatever we can to assist in the solution of this problem.

The Teamsters' Union has cooperated with our employers in achieving efficient operations. Leading spokesmen in our employing industries have stated on many occasions that the Teamsters' Union takes "a realistic and commendable perspective of the values of transportation automation"; that "the leaders of the Teamsters recognize that these restrictive conditions and featherbeds are harmful to the industry. . ."; that the Union "is exercising the judgment of responsible unionism."

We do not resist automation, but we want to cushion its effect on labor. From labor's point of view, we want to reconcile, so far as possible, the continual growth of automatic technology with job security. We wish to alleviate the hardships of those displaced by automation and to protect the employment opportunities, earnings and work conditions of those retained on the job.

### Automation and Unemployment in Selected Teamster-Organized Industries

~~Unlike other unions whose membership is concentrated in one or two industries, the Teamsters cannot easily trace the impact of automation upon unemployment among their members. The reasons are several.~~

~~The diversity of industries in which our union has membership complicates the job of assessing the impact of automation on employment. It is, therefore, difficult to be specific about unemployment.~~

~~Most of our approximately 900 local unions are so-called "general locals"; that is, they organize workers in many industries. Thus, when such local unions report a drop in membership, our International Union has no specific way of knowing the industry or industries in which jobs are declining, or the reasons for such decline.~~

~~Many of our members are in the service area. The delivery of milk, bread, laundry, newspapers, etc. is a 52 week-a-year business. Many of our members work for small firms who have to continue to provide deliveries, regardless of volume.~~

Employment statistics on the trucking industry are not available. In addition, the trucking function is performed not only by motor freight common or contract carriers, but also by virtually every other industry in the American economy. This complicates the problem of determining and assessing the impact of automation on our truck driving membership.

Although our automation unemployment problems may not be as severe and as concentrated as other unions, we nevertheless have our share.

We have attached to this statement three reports describing technological developments in the following industries: trucking; fruit and vegetable canning and preserving; and dairies.

On the basis of the employment and productivity figures shown in these three reports, it is fair to conclude that mechanization and technological advances have outstripped the creation of new jobs. Employment is not increasing to the same extent as the output of these industries.

Increased weight and size of trucks and mechanical equipment has increased the productivity of the individual driver. Years ago a horse and wagon required a 10-hour day to move only 10 tons of earth. Today a driver operating a 10-ton dump truck can move 320 tons of earth in two hours less working time at one-fourth the cost per ton.

In warehousing, the use of electronics, select mechanism, automatic conveyors and automatic loading and unloading equipment have been combined with other advances to make operations at new warehouses largely automatic. Warehousing has been marked by the development of unitized loads, roller and chain bed trucks, wheeled pallet adapters, palletizers, depalletizers, conveyor syst electronic sorting, and a whole area of electronic devices.

Inventory data processing eliminates much of the manual paper work in warehousing and increases the use of machines in record keeping.

The result is fewer jobs.

Automation has permitted present workers in the industry to produce more per employee. At the same time, the greater output or productivity, by permitting the same or fewer workers to produce more, means that the industry does not hire new workers. This produces what might be called the "iceberg" effect -- unemployment which is not attributed to any particular industry but which is generalized. Employment opportunities do not exist for those entering the labor market or for those losing their jobs in other industries. This has been true even in the trucking industry which has shown marked growth over the past few decades -- a growth sufficiently rapid to counteract dimished job opportunities stemming from automation.

A dynamic and effective organizing program has helped to offset Teamster Union membership losses due to technological or automation unemployment. The Teamsters' Union has been the only major trade union which has aggressively kept pace with the giant strides of the American economy since the end of World War II. Other unions and their members have undoubtedly suffered to a far greater extent. We join with them, and with the rest of the American labor movement, in stressing that it is time to take action on several fronts to do something for the victims of automation-created joblessness. Without a sharper rise in jobs than has been taking place in recent years, our unemployment problem may well become a nightmare.

Even the National Association of Manufacturers, in its weekly publication, *NAM News*. concludes that employment problems will be "severely magnified by automation-enforced occupational shifts." This report adds that the need for production workers "has been decreasing despite higher output because of higher speeds, mechanization and technological improvement." It looks forward to still greater mechanization and displacement.

We should like to present to this Committee a film titled, *Wonders of Automation*. filmed in California's Imperial and Salinas Valleys. This 25-minute film portrays in vivid color the story of what changes and mechanization have caused in the produce industry.

Shown is the only machine in existence which combines harvesting with processing to send carrots off to makret within ten minutes after they are pulled from the soil. This highly mechanized unit moves at a constant eighth of a mile an hour through a field, gulping carrots at one end and expelling them at the other in cellophane packs -- you find them at any supermarket -- in an incredibly short time. This is a monstrous machine which actually eliminates one complete phase -- the conventional processing installation which normally is a permanent facility located in the nearest community anywhere from five to thirty or more miles from the field being harvested. For the purposes of contrast, the film shows such a permanent processing shed, along with the old way of harvesting

Another phase of the film treats with harvesting and processing of head lettuce. Hand-cutting of the lettuce contrasts with mobile machines which stitch cardboard cartons into which the produce is packed for hauling by truck to the nearest cooling center, located some miles from the field.

Automation really begins at the cooling center where a huge fork-lift, in one speedy maneuver, unloads 320 or more cartons from a truck in a matter of seconds. A network of conveyors within the center eliminates all human manpower except the hands of a half dozen workers in the essential process of chilling the lettuce and loading it into refrigerated trucks or railroad cars to be speeded off to market.

We hope that this film will be helpful and instructive to this Committee and to its staff, in showing the application of technology to some of the industries and operations in which our members are employed. The film also makes clear the many ways in which mechanization is displacing workers.

National Economic Policies Must Support Collective Bargaining on Automation

Collective Bargaining -- the trade union's tool -- has developed a variety of solutions to automation: greater wage increases; guaranteed employment on a year-round basis; shorter hours with no loss in take-home pay; broader seniority rights including preferential hiring rights for laid-off workers; retraining displaced workers at company expense; dismissal pay; improved pension plans, including earlier retirement and vesting of benefits after relatively short period of service; etc. These collective bargaining provisions constitute, in essence, a form of social cost of automation for industry. They call for a high degree of social responsibility by management.

But these collective bargaining arrangements between a company or an industry and a union are essentially only shock absorbers or stop gaps. They constitute merely the first line of defense against automation unemployment. [illegible]ially they are designed to cope with the problem of "temporary" unemployment, rather than a situation where a man's job literally disappears under automation.

Unfortunately, collective bargaining contract protections cannot create essential job opportunities. Collective bargaining alone cannot cope with the tremendous pressures of automation-induced unemployment. The complexity of the problem calls for an effort beyond that of any single union, or single company, or single industry, or combined labor-management effort.

Labor and management should continue to seek solutions to the labor problems flowing out of automation. But these private solutions, in the final analysis, can only be limited and temporary.

Collective bargaining affects only a fraction of our total economy. Other factors -- tax, monetary credit, and fiscal policy, etc. -- are more far-reaching in their consequences. We must therefore develop a proper national economic and social environment to make the achievements of collective bargaining and labor-management cooperation successful.

Role of Govt.

National full-employment economic policies are called for -- both to generate jobs and to sustain purchasing power. As stated by the editors of Fortune earlier this year, "The vital task ahead is one of job creation, and the vital energizing currents here are national not regional in scope."

If technological progress is to be orderly, we must tackle the unemployment problem promptly on a national scale. The national well-being requires it; the continued existence of our present social and economic order demands it. Full employment must be our goal if we are to avoid the nightmare problem of displacement and adjustment created by technological "progress."

This calls for effective implementation of the Employment Act of 1946 so as to provide a constantly expanding economy. We need increased consumer purchasing power to match our growing productive capacity and increased business investment to further create employment and stimulate consumption.

We need allied programs consisting of wage supports, tax measures, training retraining programs, relocation subsidies, and other security guarantees to technologically displaced workers and their families. But above all, there must a job at the end of the line for those willing and able to work. Otherwise, these social insurance systems and retraining and placement resources are of little use. This is why the full employment, an expanding economy goal must be the capstone of our national policies.

Serve America While Creating Jobs

In spite of our vaunted American standard of living, there are still millions of American families living on sub-standard incomes. In spite of our vast wealth, the gap between need and fulfillment in the public sector is enormous -- in education, health, slum clearance -- public housing -- metropolitan re-development, and preservation and development of natural resources. When we build school classrooms, hospitals, public housing, and all the other things our people need, private industry will have more business and people will [illegible] full employment.

As a nation, we have to adjust our thinking to an age of abundance, rather than scarcity, and automation helps to supply that abundance. Automation can be used to serve men and to free men. But if workers lose their jobs, or are never hired, because of automation, then the central purpose of our economic activity i[illegible] democratic society is defeated. Economic progress must be equated with human needs. For this, we need a constantly expanding economy, to absorb both new workers and those displaced by technical advances. Full employment is the answer!

Workers have a right to a fair share of the fruits of the nation's expanding productivity, which automation will accelerate. Unless workers' buying power advances as productivity increases, the economy will produce more than consumers can buy. Economic prosperity can be assured only if wages continually rise as the Nation's productive power expands. Without a proper balance between production and consumption, full employment and prosperity are impossible.

Surplus wheat can be stored. Surplus workers -- and this is what automation is creating -- cannot! Our members are not accustomed to eating on a long-run basis. Their bills have to be paid today. They cannot obtain credit on the expectation of a job two years from now. All they know is that their jobs are evaporating and they are left high and dry.

People can't buy unless they work. Industry can't sell its products and services unless people have money. Industry looks to the consumer to keep the economy going. Eliminating people who make a product eliminates the market for that and other products. One cannot produce wealth with machines alone.

Challenge of Russia

If we can develop crash programs for missiles and exploration of outer space, we can and must plan to solve the problems flowing out of automation. We must devise and develop tools to wipe out the spectre of chronic unemployment, the sentence of economic death. Our nation faces no challenge so great if we are to maintain the stability of our economy and way of life. If past policies and methods are inapplicable to today's technology, let us devise new ones.

Necessary if we are to be able to meet our responsibility as leader of world

Why should we have full employment only in time of war? Certainly in time of peace there is work to be done -- job-providing work -- to improve the

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of people and the nation. Let us set our sights for abundance, not [illegible]city. Let us gear our policies for full production, not under-utilization [illegible]pacity and facilities. Let public investment join private enterprise in supplying people's needs.

The be[illegible] answer to the problems created by automation lies in the prosperity of our country. A booming economy is needed to keep everyone -- except the [illegible]onally unemployed -- at work. We definitely need to buoy up our economy. [illegible] reality of the Employment Act of 1946. If our economy is falter- in[illegible] ployment problem -- whether automation-created or ot[illegible] ineffective.

Lack of Info

[illegible] recommend the creation of a National Commission on Automation [illegible] of representatives of labor, industry, educators and the [illegible]ment [illegible] impact of auto[illegible] to develop plans [illegible] its [illegible]ies, and the nation. [illegible]-range planning, major [illegible] disaster to our human [illegible]

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[illegible]le. As I have [illegible] the entire [illegible] lieve [illegible] measures; [illegible] the very minimum,

ing and [illegible] employment insurance coverage
[illegible] financial needs of the
[illegible] family;
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[illegible]ion with our schools and
[illegible] offices to provide job [illegible] for young
[illegible]e and for [illegible] displaced by technological change,
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[illegible] and other security guarantees to workers
[illegible] of technological changes;
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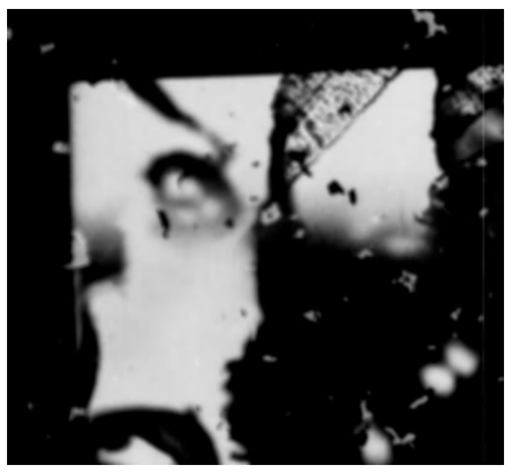
[illegible] monetary policies should be reviewed to assure that
[illegible] economic growth and job-creating potential.

[illegible] policy. We need a massive attack on all aspects
[illegible] efforts of government, labor and indus-
[illegible] if we are to forestall a nightmare of
[illegible] combined [illegible] develop adequate solutions
[illegible] the future
of our economy.

[illegible] grave responsibility [illegible] wish you well in this task, and
we [illegible] cooperation.



INTERNATIONAL BROTHERHOOD
OF TEAMSTERS

## ATTACHMENT A

## AUTOMATION AND EMPLOYMENT TRENDS IN TRUCKING

Technological changes in the trucking industry have taken a variety of forms described below. However, they have not constituted major technological breakthroughs such as have occurred in the mass-production industries or even other transportation industries such as the airline, water carriers and even the railroad industries.

Outwardly, the trucking industry does not seem to have changed much in character, despite its enormous growth. Yet the cumulation of a variety of technological changes have slowed down employment in a rapidly-growing industry and have enabled the present work force to produce more.

The following table shows that trucking employment in the last decade has lagged behind the industry's "output" -- intercity ton miles:

INDEXES OF TON-MILES OF FREIGHT AND EMPLOYMENT IN THE HIGHWAY TRUCKING INDUSTRY, 1949-1959
(1949=100)

| Year | Intercity Ton Miles/1 | Employment/2 |
|---|---|---|
| 1949 | 100 | 100 |
| 1950 | 137 | 110 |
| 1951 | 151 | 122 |
| 1952 | 148 | 127 |
| 1953 | 159 | 134 |
| 1954 | 151 | 133 |
| 1955 | 173 | 143 |
| 1956 | 173 | 151 |
| 1957 | 176 | 154 |
| 1958 | 176 | 150 |
| 1959 | 196 (Est.) | 161 |

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/1 - Intercity ton-miles of Class I, II, and III intercity common and contract motor carriers of property, operating under Interstate Commerce Commission authority.

/2 - Full-time equivalent employees. Full-time equivalent employment measures man-years of full-time employment of wage and salary workers and its equivalent in work performed by part-time workers. Excluded are estimates of employees engaged in public warehousing.

Illustrative technological changes and automation developments in trucking operations are described below.

1. Advances in equipment design and construction

To enable truckers to carry longer and heavier hauls, motor carriers and equipment manufacturers have been developing lighter equipment carrying more payload without any boost in the gross maximum weight or length or height of the vehicle

A parallel trend involves changes in the usage of units now available, changes reflected in the 60-foot tandems seen frequently in the West, and in the big 98-foot or more "double bottoms" (two trailers pulled by a single tractor) now authorized in several eastern and mid-western states.

Use of the diesel engine in trucks continues to grow. Ten years ago some 5 percent of all heavy-duty trucks were diesel powered. Now more than 25 percent are so [illegible]ipped The superior fuel economy of diesels permits the use of more powerful [illegible]ines, which in turn produce higher daily mileage.

Within the next few years truck engines with double the power of those now on the roads will begin to make their appearance. Since they will be capable of higher sustained speeds along the new Federal highway system, they offer the promise of a dramatic speedup in long-distance truck schedules.

There has been a steady increase in allowable weights and in length of trucks and trailers. In 1956, there were 11 states which limited over-all tractor-semitrailer length to 45 feet and three states imposed a limit of 48 feet. Today. all states allow at least a 50-foot combination, with 33 states at that figure; four allow 55 feet; eleven 60 feet, and three 65 feet or more. In addition, certain toll roads have authorized the use of 98 to 105-foot "double bottom" tandem trailers

In 1948 units of 28-30 feet in length led in van trailers produced (27.5%) In 1960 [illegible]% of the trailers were in the 38 to 40-foot category.

Even over the past few months, several states have announced new permissible lengths and weights for their highways. For example, the District of Columbia now allows 40-foot trailers. Kentucky permits 50-foot tractor and semitrailer combinations.

In South Carolina and Michigan, 55-foot combinations are permitted. In Utah, 80-foot units are approved, with permits granted annually to 65-foot rigs. Maximum weights of these units in Utah can go as high as 79,000 lbs. Although Pennsylvania prohibits doubles or tandems, it allows single trailers as long as 60-feet on its turnpike (but only 35 feet off it).

These liberalized limits on weight and length mean bigger and fewer trailers for any given tonnage to be hauled. In the absence of increased volume, this would, of course, adversely affect the jobs of drivers and platform men

An unusual semitrailer has been developed. It has no axle between the rear wheels and can be tipped, tilted, lowered to street level, or raised to the height of platforms up to 52 inches to facilitate loading or unloading. It is reported that this design, not yet in much use, cuts cargo-handling costs 33 percent

A new half-straddle semitrailer has just been put into test use. It can pick up or unload a full-length trailer load of palletized freight in 60 seconds

Brady

The use of specially built cargo tanks equipped with conveyors for unloading has become widespread in the transportation of bulk loading in powder or granular form, such as flour, portland cement, and livestock feed.

## F. Piggyback and Containerization

A "technological" change of a sort -- namely, coordination of truck shipments with rail, water and air carrier service -- is taking place in the form of "piggyback," "fishyback" and containerization. Such coordination tends to reduce job opportunities for over-the-road or long-line drivers.

Piggyback is the handling of highway trailers or containers on railroad flat cars; fishyback is the handling of such containers on ships. Containerization is essentially pre-packaging freight in van-sized containers, saving handling and packing costs. Under this concept, piggyback is nothing more than treating truck trailers as containers.

Piggyback, fishyback and containerization may be thought of as a "pipeline on wheels," since the system allows door-to-door delivery without breaking bulk between carriers. The container (whether a highway trailer, van or box) is designed to travel with ease on ships, railway flat cars or on the road.

Containerization differs from piggyback which employs truck trailers which are loaded directly from the road onto railroad flat cars. In the newer system, similar trailers are used for containers but the wheels and chassis are detachable and there is no necessity to haul the running gear along with the cargo.

To the extent that piggyback, for example, provides for transport of trailers or containers on railroad flatcars rather than on the highways, many truck drivers formerly operating on intercity runs are displaced. Though piggyback traffic represents at present a small fraction of inter-city freight, it is growing fast. The nation's railroads hauled 500,000 piggyback carloads in 1960. That was 35% above the 1959 figure and 3.3 times the total for as recent a year as 1955.

Piggyback loadings have established new records. Fast, solid piggyback trains, scheduled at speeds close to those of the fastest passenger trains, are accelerating the use of piggyback.

Docks experience N.Y. & L. Angeles

Piggyback and its counterpart, containerization, require less packing and packaging and involve less handling -- another form of automated transfer of cargo. Labor requirements are reduced, thereby affecting workers' earnings and job security.

Piggybacking of autos has already cost the jobs of about 15,000 Teamster members engaged in the delivery of new cars from the auto assembly plants to automobile dealers.

The Special Products Division of Moore-Handley Hardware Co., Inc. of Birmingham, has explained how its own containers are used in distributing ice cream for National Dairy Products Corp. in Michigan -- a special case inasmuch as Michigan laws require that a second container in a unit be placed on a four-wheel trailer. (In most States two or more containers are placed on a transport semi-trailer chassis.)

The containers are loaded at the central plant in Kalamazoo with an assortment of 2,500 gals. in each container. The transport train then takes the containers to various cities, dropping one container at a time in, say -- Grand Rapids, Lansing Holland, Jackson, Hillsdale, Benton Harbor and others.

The loaded container is exchanged for an empty at each point, and the standby refrigeration equipment of the loaded unit is plugged into an electrical circuit. Sometime later, the local route man will pick up the full container for local delivery.

Carriers of household goods are also pushing the use of containers, especially when families are moving long distances. Van-Pak, Inc., of Des Moines, Iowa, has developed an 8-foot by 8-foot by 7-foot container for rail, truck or ship. It uses these containers for its own hauling of household goods and also leases them to other common carriers for other uses.

National Van Lines of Chicago, Illinois is also experimenting with containers that nestle on a special flatbed truck trailer, six to the trailer.

The interesting thing which has developed from the transport of household goods in containers moving to and from overseas bases, to and from points and places in the U. S. is the Thruliner in which household goods or commercial freight may be packed right in the house or factory. These smaller cardboard containers are then taken to the container stations and fitted into the ocean container in groups of two, three, four, six or eight. The ocean container is then moved by ship to the receiving station overseas, or in the case of inbound traffic, to the station in this country on the Atlantic Coast, Pacific or Gulf Coast, where the ocean container is removed and the separate thruliners are moved to a household goods carrier or linehaul trailer for delivery direct to the consignee's home, factory or store, where the thruliners are unpacked and discarded. This means only one handling at each end. If air transport is used, the thruliner will go direct to the airplane, eliminating the use of the ocean container on foreign shipments.

George A. Hormel & Co. sends fresh meat from its Austin, Minnesota packinghouse to customers in Minneapolis-St. Paul by aluminum refrigerator containers; each over-the-road tractor-trailer hauls three containers, and these are conveniently split up among local delivery trucks in the cities.

Along with the containers, which can move right through from point of origin to point of destination with the freight sealed in, new equipment for handling them is making its appearance.

One of the most remarkable in appearance is the self-propelled, vertical lift free-traveling crane developed jointly by Seatrain Lines of New York and Travelift Engineering Co. of Sturgeon Bay, Wisconsin, which is described as the "first switching engine of the trucking industry."

Oddly resembling a spider, on four tall legs, each rolling on an aircraft type tire, it straddles a trailer chassis, lifts the container vertically between its legs, then rumbles off to deposit it elsewhere without the need for rails, special paving or tractor towing power.

Operated by one man, the "spider" can carry 25 tons at 10 miles an hour

Designs for larger items of this type are on the drawing board.

3. Road Systems

The Federal-Aid Highway Act of 1956 initiated a new multi-billion dollar highway program. This new system of interstate highways will mean more sustained high speed movement and thus more yearly mileage per truck or tractor-trailer. Combined with the economics of motor vehicle sizes and weights, the National Interstate Highway System should bring with it new standards of highway utilization, moving traffic faster and more safely. The highway construction program is certain to bring substantial benefits to the highway carriers in reduced point-to-point travel time, reduced mileages, fewer accidents, etc. Another benefit, of course, are fewer drivers because of less travel time due to higher average speed

Backbone of the expanded Federal State highway program is the presently designated 41,000-mile System of Interstate and Defense Highways. The Interstate System joins 42 state capital cities and 90 percent of all cities over 50,000 population It serves 65 percent of the urban and 45 percent of the rural population, and is the key highway network from the standpoint of Federal interest in productivity and national defense. When completed, the 41,000-mile system will represent approximately 1.2 percent of total road mileage but will carry 20 percent of the traffic

The Interstate System will incorporate, as it is built, the most modern techniques of highway construction and design. It will be a controlled access expressway and 95 percent of the presently designated mileage will consist of divided highways of four lanes or more. This mileage, when added to anticipated improvements on other primary highways, will mean that by 1975 we shall have 59,000 miles of divided highway mileage of the most modern design, compared to 11,720 miles of this type facility in use today and 3,573 miles in 1948

An essential part of the new program is the extensive provision for urban highway facilities, which will include by-pass routes around our major cities as well as improved expressways within urban areas. These will mean faster and more efficient movement of intercity traffic with a minimum of delay and congestion.

The national system of interstate highways will help the trucking industry in the long run. Heavy trucks on the road are now greatly retarded in climbing steep hills and working their way through congested traffic of towns and cities. The new highway system will reduce the sharpness of grades and will bypass congested areas. This will reduce wear and maintenance of vehicles. Because of less movement in low gear, it will cut out fuel consumption per ton-mile. By reducing over-the-road time, the new highways will increase mileage per driver-hour and on many runs, will thereby cut labor cost. In intercity trucking, over-the-road costs constitute a much higher portion of the total than is true of railroading, and these savings will be important.

Since the new system is to touch all 48 states, it will provide express highways along routes where they simply don't exist today -- thus opening the opportunity for much faster delivery schedules over longer distances.

The higher average speed possible through extensive use of modern roads and turnpikes enables trucking firms to extend overnight service to more distant points, thus widening their markets, while improving schedules of regular delivery points. The higher speed allows the driver to cover more miles within his hours of service limits.

The combination of improved roads and advances in power equipment have had the effect of increasing the average speed of a motor truck moving down the highway without materially increasing its maximum speed.

Many states are increasing permissible truck speeds to 55 m.p.h. Also, many turnpike roads permit speeds up to 70 m.p.h., which will increase the average miles per hour. With improved highways, the driver will not develop as much fatigue on the new highways as was formerly developed 10 years ago on the then existing highways.

A recent report to Congress indicates "that the controlled-access highway is at least 2½ times as safe as the ordinary highway, and in some instances has a fatality rate as low as one-fifth of the national average of all streets and highways." The report adds that "significant savings in travel time and greater convenience in travel are important by-products of highways having full control of access."[△]

The New York State Thruway on June 1, 1960 established a uniform speed limit of 60 m.p.h. for trucks as well as passenger cars. Tandem trailer or double-bottom rigs will still be limited to a 50-mile maximum speed because specifications for their special brakes, hitches, safety chains and other equipment were based on that top speed.

With better highways and more powerful equipment, more miles can be covered in shorter period of time, enabling the trucker to extend his services. Previously, on given trips, a driver would have to lay over away from home, because he could not complete the round trip to his home terminal without violating the maximum driving time allowable either under law or under the collective bargaining contract. Today, such trips can be operated on a round trip basis -- again reducing the need for drivers.

4. Double Bottom or Tandem Operations

Theeconomies of the new highways will be greater, of course, as new vehicular arrangements emerge designed for new highway conditions. Illustrative of these is the double bottom operation now under way on certain toll roads, in which two semi-trailers are drawn by a single power unit.

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[△] - The Federal Role in Highway Safety. 86th Congress, 1st Session. House Document No. 93. March 3, 1959. P. 3, 60.

Tandem, or "double bottom" operations are not new in trucking. They are common in the West. What is new about the latest developments is that these tandems are larger and heavier than others and they involve toll highways.

In most instances, the tractor has less horsepower than the sum of the two it displaces. Partially offsetting the reduction in the number of power units, an additional dolly has to be provided to support one end of the rear semi-trailer. Under these circumstances, the chief operating economies are as follows: labor, fuel, depreciation, interest, and maintenance. While economies will vary widely between operations, a saving of 25 percent, say from 40¢ per trailer-mile down to 30¢, is not unrealistic for operators favorably situated. A significant portion of this saving, of course, is lost by the necessity for supplying tractors and drivers for the short-haul interchange at entrances and exits to the main highway.

The use of "double bottom" tractor-trailer combinations has been authorized on the New York, Massachusetts, Ohio, Kansas, Indiana and Illinois Turnpikes or toll roads. The doubles extend up to 100 ft. overall. And the use of doubles may expand further.

Currently, the Bureau of Public Roads and the American Association of State Highway Officials are studying the possibilities of using double bottoms on federal-aid highways.

Thus far, tests of double-bottom operations have been successful on all thruways and turnpikes where they have been conducted. On the Ohio Turnpike, at least 800 doubles use the artery each month.

What these add up to, of course, is higher productivity -- more tons of freight moved per man and per vehicle. The double size rigs obviously cut labor costs; one driver hauls twice as much. Fuel consumption is less. Time consumed is less. Net savings to the trucker are more than 20 percent per mile.

There are wage savings due to the hauling of a double load with one tractor. [illegible] is expedited due to the higher speeds attainable, and the absence of traffic lights on the through highways. With fewer stops and starts, wear and [illegible] on tires, gears and engines is less.

The tandem hook-ups enable the truckers to move more payloads per power unit, which is to say per a major slice of invested capital. The customary tractor-trailer combination in New York, for example, is limited to 65,000 pounds, but 120,000 pounds is authorized on the New York State Thruway. Double bottoms, therefore, may well mean doubling truck payloads and reduced operating costs.

Of extreme importance is the fact that if the Thruway vehicles prove themselves and show that vehicles of greater lengths and gross loads are practical and fully compatible with Thruway facilities, then these same vehicles are operational on any highway design similar to the Thruway.

The New York Thruway operations involves the use of break-up points at interchanges to allow the individual units of the combinations to be taken off onto the state's regular highway system. As individual units of the combinations are loaded to conform with the state's size and weight laws when operated individually, they can be taken to and from the inter-change points with conventional road tractors and operated legally everywhere in the state.

For all the limitations of the double bottom rigs, it should be regarded as only one of a number of possible new vehicular arrangements, some of which will almost surely emerge from the novel traffic characteristics of the new highways. The vehicle will certainly adapt itself to the opportunities of the roadway, and regardless of the fate of the double bottom, as such, the economies of the new highway system will probably go well beyond those afforded to vehicles of present day. For the time being, the engineering of the vehicle has outrun the ring of the roadway --- but this is not likely to last.

other type of labor saving occurs in reduction of costs, involved in making aking tandems or double bottoms at turnpike entrances and exits. The Wolf under experiment in Texas, typifies this aspect of labor saving. The Wolf Wagon is a self-propelled van which can be hooked in tandem and by mechanical ons, both power plants can be utilized to propel the load carried. This equipment, if proven successful, would eliminate one driver in moving tandem trailer equipment from the terminal make-up area to the turnpike entrance, at which point ilers are hooked together and carried over the turnpike to the proper turnpike exit, at which point it is again necessary to break the tandem trailers into two separate units. At entrance and exit then an additional driver is needed.

n-tainers" -- two 20-foot trailers which can be combined into a single it or used separately -- will be introduced soon. They will allow the load for a single tractor at a midway route point.

company (Chicago Express, Inc.) has initiated runs between Philadelphia and Chicago over the Pennsylvania, Ohio and Indiana Turnpikes with a truck trailer 60 in length. The van operates on the turnpikes as a single trailer, but the bigger loads can be converted into trailers of 40 and 20 feet. The 40- length is usual. It can carry up to 60,000 pounds, compared with around a 40-foot unit, has a 3,650 cubic foot capacity as against 2,300 for the standard trailer. Over-all costs, including labor, are lower, on a ton-mile basis because of larger loads per unit.

e the so-called "double bottom," two trailers in tandem behind a single tractor, to which the big van is related, it is designed to enable a carrier to re freight payload per power unit and thus reduce line-haul, operating expenses.

## 5. Terminal and Office Operations

Widespread terminal improvement and mechanization programs have been under way in trucking, designed to expedite the handling of freight across the dock and to reduce the manpower required to handle a given tonnage of freight. These developments [illegible] displaced labor and cut employment opportunities for dockmen.

[illegible] feature such labor and damage-saving devices as a mechanized [illegible] chain which pulls wheeled freight containers along an elon[illegible]way in the terminal. The dragline puts truck loading, unloading [illegible] grouping on an assembly line basis. Manual labor is saved. It [illegible] sorting and eliminates handling. Earlier and more accurate dispatching [illegible] achieved. One large company (Consolidated Freightways), by using draglines [illegible] other devices instead of hand trucks, raised its system-wide terminal freight handling capacity to 1,682 pounds per man-hour in 1959 from 1,314 pounds in 1956.

At Spector's New York terminal, carts are routed electronically. Platform [illegible]en don't have to watch cart numbers, since the electronic system automatically [illegible]ts carts at the right station.

Other improved dock handling techniques include telescoping and mobile conveyors; hoisting trailer to dump bulk materials; overhead hoists; dock-leveling ramps; inclined tracks, pre-loaded carts.

Mechanical handling techniques are mushrooming at motor carrier terminals. Illustrations are cited below:

1. An electrically controlled retractable belt conveyor shoots cartons right into the truck, saving time and effort. When connected with terminal or warehouse conveyors, the loading operation becomes almost automatic. The telescoping conveyor is especially effective for nonpalletized goods, or where

pallets are impractical.

2. A pushbutton loading ramp moves up, down and out to match ever-changing tailgate heights and custom-fits the truck to the dock, forming a bridge between truck beds and terminal floors.
3. An overhead traveling hoist makes loading a one-man job and ends loading bottlenecks.
4. A pushbutton mobile conveyor sends a full truckload into the warehouse. Truckloads of eggs move from truck to warehouse in less than 5 minutes at Poultry Producers of Central California, San Leandro, by means of a powered winch conveyor that moves sideways on rails, up and down the dock.
5. Gravity pulls a pallet right into a truck or trailer through a gravity-roller system operated by one man. Used with pre-assembled loads, this technique loads a 1,730 cubic foot trailer in 30 seconds. Roller conveyors extend out of the warehouse, across docks, to truck doors. Each truck deck is also fitted with roller conveyors. Furniture packed in containers, rides or simple plywood pallets which, with a slight push, roll into the truck.

A new 52-door terminal in Brooklyn, N. Y., features a dual, semi-automatic freight handling system.

Inside this 351 by 97-foot dock area are two almost concentric mechanical tow lines, capable of handling 450 carts. The outer line conveys shipments from receiving doors to a control center through which all freight passes. The system differs from other operations in that the inner (or shunt) line "almost thinks for itself."

From the control center a control clerk can direct a switch cart to proceed on the shunt line directly and accurately to any of 32 doors in the terminal for loading or unloading. If the control clerk so instructed, the switch cart would proceed to an assembly area to wait until a trailer was ready for its shipment. The emphasis is on simple, dependable and tested mechanical principles. Inclining floors were used in strategic places, resulting in movement of switch carts by the force of gravity.

In operation, the outer line conveys each switch cart from unloading doors to the control center. There, a clerk checks the cart for number of pieces and destination. He then dials a door number of a countdown unit located waisthigh on each of the switch carts. This initiates one of the terminal's important innovations.

If a designated door is ready for shipment, the clerk engages the switch cart in the shunt line. For each door, there is one ridge adjacent to the line. Each ridge counts down one number. If door #10 had been dialed, there would be one click in the countdown device for each door the switch cart passed. At the tenth click, the cart has arrived at door #10 The cart automatically disengages itself from the line, and turns onto one of the spur lines for unloading. There are three spurs at each of 32 doors.

When a trailer headed for the shipment destination is not available at the time the switch cart reached the control center, then the control clerk would not send the cart directly to a door.

Instead, the clerk would still dial the door number, but would engage the cart in another part of the shunt line for towing to the assembly area. An electrical "memory" device operated by the control man guides the switch cart in this area.

In the assembly area, the switch carts may be on any of 19 lines, each of which has room for 12 carts. These lines slope gently toward, and are connected to, the shunt line, but a pin placed in the floor prevents them from entering. When the appropriate trailer is ready, the pin is released, and the switch carts roll onto the line and proceed to the dialed door. The lines move at 100 feet a minute. .

Three control clerks can work in the control center at peak periods and allow three times as much freight to be handled.

A scale incorporated into the shunt line system weighs each switch cart immediately at the control center, recording the weight on a special tape. This helps insure quality control over the servicing of customers' freight by permitting a cross check of scaled weight and billed weight, thus minimizing possibility of shortages or overages.

At the 20 of the 52 doors of the terminal that are not serviced by the shunt system, "odd" freight is handled. An odd freight area, for freight that cannot be handled on switch carts because of unusual shape or size, is adjacent to the control center. This area also provides space and facilities for handling "problem" or "special" shipments, such as "rush," "red label" and "hold for pick-up" and so on. Fork lift truck and four-wheel carts are available for special types of freight. The shunt line, however, handles 90 percent of the shipments.

Because of the shunt line system, it is not necessary that there be inbound and outbound sides of the terminal, as is conventional in other terminal operations.

As a tractor-trailer combination prepares to leave the area, its axle weights are recorded both at the scale and in the terminal dispatch office.

Another large terminal just outside Chicago (Olson Transportation Co.) has a dock which permits loading or unloading of 150 trucks simultaneously. Designed to handle six million pounds of freight per day, the dock contains a freight car conveyor, which completes a circuit of the dock in a continuous movement every 12 minutes. Among other handling equipment are a mechanized barrel handling apparatus, fork lift trucks for all load sizes, and overhead cranes.

An automatic truck scale allows a driver to weigh without leaving his cab. A green light indicates when to pull ahead to weigh each axle. The driver leaves his truck only once instead of the usual three times. His scale ticket is picked up at a computer 150 feet from the scale, leaving the scale free for the next truck. At the computer location there will be an electronic telescriber system constantly transmitting instructions to the men who shuttle equipment between the dock and the yard.

Automatic dockboards speed backing to the dock, and allow safer unloading. A network of pneumatic tubes will relay the freight bills.

Using closed-circuit TV as an operational tool, the chief dispatcher at Yale Transport Corp. uses 10 TV monitor screens and a public address system to direct loading and unloading of 200 to 300 trucks nightly at one terminal.

A well-known grocery chain is using high-spped electronic computers to simplify truckloading, that is, to load goods in the reverse order of delivery stops. The computers prepare invoices that indicate the sequence in which the goods ordered by individual stores are to be placed on the delivery truck. This means a quick turn-around for the trailer.

Truckers are now turning to automated and electronic data processing to handle billing and related activities.

The trucking industry long has been confronted with an almost overwhelming volume of paperwork that must be performed within tight time limits. One company, for example, (Norwalk Truck Lines) has upwards of 10,000 freight bills alone to process daily and a large number of customer collections to complete in a like period of time.

Consequently, some truck lines have installed electronic computers in their offices, to relieve clerical problems and handle paperwork volume. Computers are used for revenue accounting -- processing and keeping track of accounts receivable as well as interline accounts payable.

While performing revenue accounting, these electronic systems also produce such management control data as quality and quantity of freight handled; outbound and inbound statistics; quantity balance; etc. Other computer applications include payroll processing, maintenance of personnel records, maintenance and operating cost processing and control, preparation of various regulatory reports, etc.

One large motor carrier has installed a new billing technique which cuts billing costs in half yet prepares bills at high speed with greater accuracy. The new technique differs from the present system in the manner of copying information from bill of lading onto the freight bill after the rate clerk has entered the charges.

Under today's typical setup, a billing clerk does the copying onto a 6 - 10 part freight bill set. This typing is usually done at night, under pressure, with the average clerk typing 50-70 an hour. And a 25% error factor is not unusual. This same procedure is repeated often because 30 percent of all shipments involve a second carrier, and often a third.

However, the new system combines the two basic transportation documents -- a bill of lading and a freight bill. The shipper's original writing is used for all operations, including billing and interlining. Instead of a battery of billing clerks, there is one duplicator operator. First, the operator uses an Addressograph machine to enter the "pro" (progressive) number as well as carrier and terminal location on the "master." Then, the combined bill of lading and freig[illegible] bill "master" is duplicated in black-on-white. Copies are made in any quantity up to 400 per hour. With one turn of a handle, up to 10 copies roll out.

The use of electronics has been expanded greatly. For several years, two-way radio service has been used to a limited extent to provide communications between terminals and the vehicles along intercity highways. The use of radio for dispatching in pickup and delivery service in metropolitan areas, however, was not authorized until 1955. Since then, additional frequencies have been allocated, and there was a trend toward greater use of two-way radio communication in local service. The use of radio in intercity operations also increased. There were 1,520 interurban base stations in early 1959, compared to 375 at the end of 1955, and approximately 34,091 mobile radio units in service at the beginning of 1959, compared to 10,500 at the beginning of 1956.

Radios in tractor cabs allow constant direct contact between drivers and dispatchers, thus further improving the flexibility of operations and availability of equipment, with a consequent better service to customers and saving in vehicle and man hours. Dispatchers, through use of short-wave radios, control the driver's movements and thus cut down on layover time and "deadheading" -- returning an empty truck from a city where it has delivered a load.

Some carriers are putting in direct telephone communication between terminals to expedite space reservations and dispatching. District terminals are given earlier advance notice of trailers enroute to them, thus enabling them to plan for next morning arrivals.

6. Truck Maintenance

Electronics is now in process of being applied to truck maintenance and repair. An electronic digital computer is now available to take the guesswork out of vehicle diagnosis and repair. The computer can determine not only which individual part in a complete power unit is defective, but approximately how long it is safe to keep the unit containing it in service before it will fail. This prediction can be made just three mintues after the vehicle has been hooked up. Without removing or disassembling any unit, the computer interrogates the vehicle with a number of sensing elements called transducers and then uses logic, in much the same manner as a skilled mechanic would, to diagnose specific mechanical failings. The system is so thorough that it can pinpoint a single bearing, gear or cylinder as the potential trouble source. Then it prints this information on a card which tells the mechanic just what's wrong.

The computer is not limited to engine, transmission or rear-axle analyses as are lubricant sample testing techniques. The computer can check out electrical, fuel, and braking systems as well. Suspension tests and metal fatigue measurements are also possible.

The impact of such equipment on job opportunities for truck mechanics is obvious.

Summary

The changes in methods and techniques described above have already had a significant impact on productivity in the trucking industry and on employment. The continued growth of the trucking industry has minimized the adverse consequences of such changes on employment and job security of the industry's employees.

It is also possible, however, that the trucking business may undergo a considerable expansion without a corresponding increase in driver employment. State limitations on truck weight, size and speed are being liberalized as a result of the construction of better highways. The movement of bigger loads at higher average speeds could result in a need for fewer drivers than would otherwise be required to move the tremendous increase of over-the-road tonnage anticipated during the 1960's.

More and more fork lifts and trucks equipped with power tail gates that can be raised or lowered to platform or ground level replace manpower in the loading and unloading of vehicles and reduce the time needed by each driver to make his deliveries.

As indicated above, piggyback traffic, although relatively small at present is growing rapidly. Such increased traffic is, in most instances, at the expense of over-the-road truck operations, and means fewer loads driven long distances by drivers.

There is a counterbalancing force, however, which affects drivers' employment opportunities, since under piggyback, more men are needed in the loading and unloading operation at the piggyback terminal.

In addition, the motor common carrier will have to provide local drivers to shuttle trailers between the motor carriers' docks and the piggyback terminal. Thus, two new types of jobs will be created: the terminal loader and the city shuttle driver.

* * * * *

International Brotherhood
of
Teamsters

# ATTACHMENT B

# AUTOMATION AND EMPLOYMENT TRENDS IN THE FRUIT AND VEGETABLE CANNING INDUSTRY

The canning industry was one of the first to utilize the principle of automation. The industry today is one of the most highly mechanized of all American industries.

Automatic box dumpers, pallet handling with fork lift trucks, high speed fillers, continuous cookers, and automatic case fillers are but a few of the materials handling and labor saving devices that have been developed.

Automatic unloading is done at speeds up to 2,000 cans per minute for the small can sizes.

Since vertical retorts remain the most widely used equipment for the heat processing of canned foods, equipment has been worked out for loading and unloading the crates automatically.

Warehousing has similarly been mechanized with cases being palletized for lift-truck stacking. One installation has automatic palletizers to which the sealed cases are conveyed from one or more high speed lines.

New can closing equipment has been developed. Very high speed multiple-head (8 & 10 station) closing machines have been perfected for high speed lines. These operate as fast as 1,000 cans per minute on small and medium size cans.

Present-day machines permit fruits and vegetables to pass virtually untouched from field into the can. Pits of peaches and apricots are cut out mechanically, cores of apples are removed, and their skins peeled by machines.

Technological improvements in the canning industry have introduced increased cannery case-yield per ton for some products.

To insure fast handling of the crop, harvesting and packing are synchronised in a program in which mechanical picking is paced at an average of 1½ hours ahead of processing. A mechanised picker harvests five tons of corn per hour.

The degree of mechanisation in food processing can be illustrated by a simple statistic: In one three-shift 21-hour day during the 1960 season, the Stayton Canning Co., Stayton, Ore., processed 400,000 lbs. of frozen corn, in addition to the day's canned pack.

The Libby-McNeill & Libby peach cannery at Gridley, in California's "peach bowl" has mechanised its receiving, preparation and processing departments to handle peaches at a rate better than a ton a minute. This means that when operations are at capacity, more than one hundred peaches go into cans every second of the working day.

At the Campbell Soup Company's Sacramento (Calif.) plant organised by Teamsters Local 228, the plant's work force has been cut from 1,800 to 1,150 in the past two years by mechanisation - automatic stacking machines, meat-mching machines, and large lift devices able to handle 200 to 250 boxes at a time.

In June 1958, Mr. Edward E. Burns, President of the National Canners Association reported:

> "Commercial food canners have increased their output per man-hour twice as much as other industries in the past decade." For canners, it is 50 percent against 25 percent for industry as a whole, he stated.

In 1958, output in canning, preserving & freezing increased by about 40 percent over 1947. During this same period, production worker employment declined by 12 percent. (Table 1)

In 1958, output per man-hour in this industry (for production workers only) was up about 60% above the industry level of 1947.

[illegible] show the decline in employment while production, in [illegible] cases, increases from year to year.

[illegible] data in Tables I & II relate to the canning industry in the United [illegible]. In California - the leading state for fruit & vegetable canning - [illegible] trend is even more startling. From 1950 to 1959, production workers increased 10%, while average hours worked remained virtually unchanged. Production, however, increased 82% (Table 3).

Not all of the increase in output per worker in food processing (or the decline in number of workers needed per unit of output) was due to automation. However, this is largely just a question of definition. When automation is defined very simply as the displacing of a worker's effort with the use of machinery, then there is no question remaining that automation is by far the most significant, if not the only factor involved.

If the above changes in output per man hour had not been accompanied in the 1950's with increased production demands related to the population expansion, the results might have been disastrous to many of the local unions in the cannery division. However, increased production has not been sufficient to prevent a decline in Teamster employment in food processing, because of the overpowering significance of the automation trend and the consequent productivity increases which are behind the output per man hour statistics.

## TABLE 1

Canning, Preserving and Freezing: Output, man-hours, and output per man-hour - 1947 - 58

(Indexes, 1947 = 100)

| Year | Output | Employment | | Production Worker Man-hours | Output per - | | |
|---|---|---|---|---|---|---|---|
| | | All Employees | Production Workers | | Employee | Production Worker | Production Worker Man-Hour |
| 1947 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1948 | 98.9 | 100.4 | 99.6 | 95.8 | 98.5 | 99.3 | 103.2 |
| 1949 | 102.2 | 95.3 | 93.8 | 91.7 | 107.2 | 109.0 | 111.5 |
| 1950 | 109.3 | 94.9 | 93.3 | 92.4 | 115.2 | 117.1 | 118.3 |
| 1951 | 124.0 | 98.2 | 96.9 | 97.6 | 126.3 | 128.0 | 127.0 |
| 1952 | 119.2 | 95.8 | 93.9 | 93.0 | 124.4 | 126.9 | 128.2 |
| 1953 | 125.1 | 100.3 | 98.2 | 96.8 | 124.7 | 127.4 | 129.2 |
| 1954 | 126.4 | 94.7 | 92.6 | 90.3 | 133.5 | 136.5 | 140.0 |
| 1955 | 131.9 | 95.7 | 93.2 | 90.8 | 137.8 | 141.5 | 143.3 |
| 1956 | 147.5 | 98.2 | 95.6 | 95.2 | 150.2 | 154.3 | 154.9 |
| 1957 | 141.4 | 93.0 | 89.1 | 87.5 | 152.0 | 158.7 | 161.6 |
| 1958/1 | 139.2 | 92.8 | 88.6 | 88.3 | 150.0 | 157.1 | 157.6 |

/1 Preliminary

Source: U. S. Department of Labor, Bureau of Labor Statistics

## TABLE 2

## CANNING AND PRESERVING

| Year | Employees (in thousands) | Production Workers (in thousands) | Canned Food Production (Millions of Standard Cases) |
|---|---|---|---|
| 1950 | 225.5 | 196.6 | 495 |
| 1951 | 233.3 | 204.2 | 539 |
| 1952 | 227.6 | 197.9 | 526 |
| 1953 | 238.2 | 207.2 | 536 |
| 1954 | 225.0 | 195.1 | 518 |
| 1955 | 227.4 | 196.3 | 542 |
| 1956 | 233.3 | 201.5 | 618 |
| 1957 | 220.8 | 187.7 | 567 |
| 1958 | 220.4 | 186.6 | 589 |
| 1959 | 223.0 | 189.2 | 586 |
| 1960 | 227.6 | 192.7 | 600 (annual est.) |

Source: Bureau of Labor Statistics; National Canners Association.

## TABLE 3

## Indexes of Employment and Hours Worked of Production Workers and Output in the Fruit & Vegetable Canning and Preserving Industry in California, 1950 - 1959

(1950 = 100)

| Year | Average Number of Production Workers | Average Hours Per Week | Total Cases |
|---|---|---|---|
| 1950 | 100 | 100 | 100 |
| 1951 | 117.3 | 103.8 | 147.3 |
| 1952 | 113.5 | 102.3 | 131.4 |
| 1953 | 111.8 | 98.5 | 124 |
| 1954 | 102.9 | 98.5 | 130.4 |
| 1955 | 109.7 | 99.7 | 164.2 |
| 1956 | 119.7 | 104.5 | 190.9 |
| 1957 | 111.1 | 101.3 | 164 |
| 1958 | 107.6 | 100.8 | 172.9 |
| 1959 | 110 | 100.3 | 181.9 |

Source: Canner/Packer Annual Yearbooks

Brotherhood

# ATTACHMENT C

# AUTOMATION AND EMPLOYMENT TRENDS IN THE DAIRY INDUSTRY

Many dairies are making extensive use of automated machinery. This applies not only to the large national chains but to medium-sized, regional [illegible]

In the dairy industry, technological discoveries are being applied [illegible] at all stages -- in production, transportation, processing and distribution of milk and its products. Like a chain reaction they affect the character and organization of the entire industry, with an adverse impact on employment opportunities for workers in the industry. A rapidly increasing population and growing urbanization have encouraged investment in plant and equipment which have displaced manpower.

Larger fluid milk plants have decreased unit labor inputs heavily by high-temperature short-time pasteurizing, automatic handling of packaged milk, and in-place cleaning.

The International Brotherhood of Teamsters is by far the dominant union in milk processing and distribution, and its membership in this industry, over the past decade, had declined due to increased mechanization and similar changes in distribution and operation. (SEE TABLE I ATTACHED) Employment has dropped by 25 to 30 percent in the last 10 years, while the volume of milk moving into commercial channels for processing has increased by 17 percent.

Present day plants feature more and better automation: integrated processing systems -- simplified instrumentation -- packaging and handling innovations -- move convenient and flexible cleaning systems. There has been renewed emphasis on continuous product movement and a trend toward the integration of automated components into continuous processing.

Automation is becoming feasible for the small processor in the form of miniaturized instruments units and packaged control devices.

In processing, the new technology has been remarkably successful [illegible] reducing labor requirements. As an example, one dairy product plant handling over 1.5 million pounds of whole milk daily requires only 9 men [illegible] operate its plant 24 hours daily. Its products include ice cream mix, [illegible] cream, nonfat dry milk, and condensed skim. In the flush season, a continuous churn makes sweet butter which is stored for ice cream making. Pushbuttons control the metering of ingredients by electric pumps. This plant receives bulk milk and moves its liquid product in bulk tanks. Ice cream making now can be completely automated, thanks to the development [illegible] the continuous freezer, packaging equipment, and hardening tunnel.

A new automated milk plant operated by Stop and Shop Stores of [illegible], Massachusetts is run by six men. These six men handle the entire operation -- from receiving to loadout including the operation of the three fillers which consist of two half gallon and one quart machine.

Decline in number of plants. -- The number of fluid milk plants [illegible] been declining since the 1930's, and volume per plant has increased. A U. S. Department of Agriculture study of 80 fluid milk firms shows that between 1952 and 1959 the annual volume of large plants rose 34 percent, medium-size plants 57 percent, and smaller plants 37 percent. Much of this increase came from absorbing volume from plants which have gone out of business. Preliminary data from the 1958 Census of Manufactures indicate a 5-percent decline since 1954 in the number of fluid milk establishments having 20 or more employees. This change suggests a sharper decline in the number of smaller plants.

The drop in numbers of dairy manufacturing plants, which is more dramatic, has been hastened by the change from processing farm-separated cream to whole milk. Between 1939 and 1958 the number of plants reporting butter production fell 58 percent, American cheese, 51 percent, evaporated milk, 45 percent, wholesale ice cream, 37 percent. Only nonfat dry milk plants increased in number -- 76 percent. In the same period, average production reported per plant increased 87 percent for butter, 271 percent for American cheese, 94 percent for evaporated milk, 248 percent for wholesale ice cream, and 263 percent for nonfat dry milk (human food). This trend is expected to continue.

Improved roads, trucks, refrigeration, and equipment make it possible to preserve the quality of milk during a haul of 1,000 miles or longer.

Centralized Milk Processing. -- Developments in the distribution of fluid milk are more extensive than those in the distribution of manufactured products. [illegible] current trend toward large plants is centralizing fluid milk processing. [illegible] large volume plants in the perimeter of city areas serve fringe areas [illegible] markets in addition to the central city market. From these [illegible] move milk to wholesale outlets --- stores, institutions, and [illegible] Semitrailers haul milk to distribution centers strategically [illegible] service home delivery routes, either local or at distant points, [illegible] at wholesale stops.

[illegible] to this change from local to area plants has been the [illegible]ity of [illegible]ts to incorporate new technology into their processing [illegible] lower costs.

Shift from [illegible] Del [illegible] Store Sales. -- The shift from home delivery to store [illegible] -- [illegible] he most noteworthy change in fluid milk distribution [illegible] ati [illegible] ling. A study of 80 representative milk distributor [illegible] the [illegible] holesale sales grew from 58 percent to 63 percent of [illegible] sales [illegible] 956 to 1959. While the grocery store has become [illegible] lesale outlet, less conventional ways of selling m [illegible] ortance. The number of dairy stores has grown [illegible] rous in the Western states. Vending machines [illegible] ber since 1955. On January 1, 1960, 43,700 indoor mi [illegible] and 34,700 ice cream vending machines were reported. [illegible] 59 [illegible] million of milk and dairy products.

But the [illegible] to [illegible] les has slowed up. Some consumers want some deli [illegible] enc [illegible] ice will continue. To this end, firms are end [illegible] to [illegible] of home delivery routes. In most markets, fre [illegible] del [illegible] declined from daily to three-time weekly, and in some marke [illegible] week delivery is found. Definitely, the trend is towar [illegible]. With concentrated milk, perhaps weekly deliveries [illegible] found feasible.

Ice cream m [illegible] lar [illegible] lants now can be a completely automated operat [illegible] ciali [illegible] lants are making an increasing proportion of froz [illegible] ucts.

Notable labor [illegible] ess has taken place in ice cream plants which now utilize au [illegible] tic boxing machines and devices for handling and wrapping. Automatic [illegible] ading and unloading hardening chambers are making their appearance, of [illegible] ing a fresh approach to handling. One machine automatically opens, f [illegible] ls and seals cylindrical half gallons of ice cream.

closing, cartoning, wrapping and handling devices are increasingly used.

An electronic brain computer coupled with automatic controls, has enabled the H. [illegible]d and Sons plant in Boston, Massachusetts to boost ice cream m[illegible]tput from 1,300 to 2,500 gallons per hour and reduced labor requirements from nine to two men. An analog computer determines the recipes for ice cream. The unit determines the correct ingredients to provide a set proportion of butterfat and milk solids. From the content of the day's ingredients, the computer produces a coded [illegible] card which is then interpreted into a series of valve adjustments that regulate the flow of ingredients from storage to blending tanks.

Mechanization applies to material handling as well as to milk production. For [illegible]h, cases of empty bottles are placed by a machine, one at a time, on a conveyor, which takes them to a place where they are unloaded. The bottles are fed into a washing machine. When they emerge, they flow onto a production line where they are filled and capped automatically, then collected and loaded by machine into waiting cases. Stacked six feet high, they are slid onto the loading platform, ready for truck delivery. Paper containers for store delivery are handled in a similar manner. Once the day's production is out of the way, a clean-in-place system takes over to wash down the machinery.

A West Coast frozen food distribution plant handles 2,500 cases per hour from storage to trucks semi-automatically. (Peak performance is 3,500 cases per hour under ideal conditions). Volume merchandise stocked by this firm is touched only once by human hands from its reception at truck and rail docks until it is loaded for store delivery in refrigerated trailers.

Pipeline cleaning [illegible] been completely automated. The entire cleanup of the plant can now be a[illegible]ted and with the use of liquid cleaners the need for human service c[illegible] reduced to a bare minimum.

In one independent [illegible] making sour cream, two men were producing an average of 120 cans per [illegible] (8 hr.), with additional labor for cleanup. Through develop[illegible] semi-continuous process, three men process 250 cans of sour cr[illegible] have enough time to clean the equipment in the standard 8[illegible] shift. On this score alone, a substantia[illegible] is reali[illegible]

Auto[illegible]-pla[illegible] systems control the entire cleaning cycle. The [illegible]ded a [illegible]quence program timer which electronically controls the le[illegible] cleaning cycle, operates pumps and automatic valves, [illegible]gent concentration and gives energy to the temperature contro[illegible].

## TABLE I

## DAIRY PRODUCTS -- EMPLOYMENT AND OUTPUT

| YEAR | EMPLOYEES | PRODUCTION WORKERS | AMOUNT OF MILK SOLD TO PLANTS AND DEALERS | | |
|---|---|---|---|---|---|
| | (In Thousands) | | Total | Whole Milk | Farm Skimmed Cream |
| | | | (Millions of pounds) | | |
| 1960 | 95.2 | 64.0 | --- | --- | --- |
| 1959 | 96.8 | 65.5 | 110,493 | 100736(p) | 9757 (p) |
| 1958 | [illegible] | 66.7 | 110,115 | 99565 | 10550 |
| 1957 | 104.9 | 69.6 | 110,284 | 98378 | 11906 |
| 1956 | 108.7 | 72.1 | 108,840 | 95362 | 13478 |
| 1955 | 112.7 | 74.9 | 105,616 | 90801 | 14815 |
| 1954 | 116.6 | 77.6 | 103,784 | 87874 | 15910 |
| 1953 | 118.2 | 80.4 | 100,901 | 84567 | 16334 |
| 1952 | 119.9 | 82.7 | 94,154 | 77301 | 16853 |
| 1951 | 124.5 | 86.8 | 93,010 | 74480 | 18530 |
| 1950 | 124.9 | 90.3 | 94,413 | 74205 | 20208 |

SOURCE: Bureau of Labor Statistics, U. S. Department of Labor;
U. S. Department of Agriculture,
Agricultural Marketing Service

# IMPACT OF AUTOMATION ON EMPLOYMENT

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WEDNESDAY, APRIL 12, 1961

- - -

House of Representatives,

Subcommittee on Unemployment
and the Impact of Automation
of the Committee on Education
and Labor,

Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the Caucus Room, Old House Office Building, Honorable Elmer J. Holland (chairman of the subcommittee) presiding.

Present: Representatives Holland (chairman), Joelson, Garland, and Bruce.

Also Present: Representative Bailey, and Griffin.

Dr. Walter Buckingham, Director of the Subcommittee.

Mr. Holland. The subcommittee will come to order.

Will you give your name and title?

STATEMENT OF HAROLD J. GIBBONS, EXECUTIVE VICE PRESIDENT,
ACCOMPANIED BY: AL WEISS, ECONOMIST,
INTERNATIONAL BROTHERHOOD OF TEAMSTERS.

Mr. Gibbons. My name is Harold J. Gibbons, and I am the executive assistant to the General President of the International Brotherhood of Teamsters.

Mr. Holland. Mr. Gibbons, we welcome you here today.

As you know, we have been having hearings on unemployment and the impact of automation which I think you will agree with me has become one of the largest problems besetting the United States. It has affected our economic life more than any other problem.

We have been asking the people who appear that they state their cases wherever possible to give the effect of automation on unemployment and, if you have any suggestions to correct these conditions, we certainly would like to hear from you because we are going to depend upon the people appearing to give us the solution of this problem.

Go right ahead, Mr. Gibbons.

Mr. Gibbons. We certainly agree with you, Mr. Chairman, on the impact of automation on our economic situation, and we join you in a deep concern for this problem.

I want to say to begin with that we appreciate the opportunity to appear before you today on this issue. We are glad to join with other representatives of organized labor in calling attention to the impact of automation and technological change not only on our membership, but on the economy at large. It is appropriate, I believe, for us, as representatives of workers who bear so much of the costs of "progress" in the form of loss of jobs, shorter hours and reduced income, to bring you their story and to urge that appropriate action be taken not only in their behalf but for the well-being of the entire country because our interest extends beyond the more than one and one-half million Teamster members and their families. It extends to the entire nation -- because this is a national problem.

The committee is examining the impact of automation on unemployment. I prefer to couple the terms "automation and technological change," since from an economic viewpoint automation is but another,more advanced, stage in the evolution of technology. In essence, these terms mean the use of technically improved or advanced machinery, methods of equipment, introduced to obtain greater productivity at less cost, and nearly always requiring less manpower in producing or distributing more goods, materials or services.

As contrasted with mechanization, automation is applicable to a wide variety of industries and work processes. Its potential application is virtually limitless and it is proceeding more rapidly than other technological changes of the past.

Regardless of the term used, the end result for workers is the same: unemployment, total or partial. And for new members of the labor force -- a shrinking labor market in which jobs become increasingly difficult, if not impossible, to obtain.

Economic Background: One of the important aspects of automation at the present time is the circumstances under which it is making its greatest strides. Automation is feared today because it is speeding up and rolling into high gear at the same time that our economy (over the last decade) has been faltering and hesitating. Labor properly feels concern over job security and employment opportunities when joblessness rises from month to month. Certainly, the economic climate seems to hold out little hope for work opportunities.

Unemployment has been higher after each recession. The economy is generating new jobs at a slower rate than the growth of our labor force.

Our population is up; our work force is up; but the number of jobs in the private economy is down. Private industry (as compared to government) is now producing fewer man hours of work than in 1953. To us these seem to be significant facts in any relationship of the trends that are occurring today.

Manufacturing output as a whole has risen 17 percent since 1953 but employment has dropped 5 percent. Bituminous coal output in 1959 was 35 percent below the 1947-48 average; employment was down more than 60 percent. In short, fewer people are turning out more goods. Workers should be rewarded for this, not penalized.

The U. S. Department of Labor expects the labor force to increase by 13.5 million between 1960-70, as compared to 8.9 million in the previous decade. At the present time there is nothing to indicate that enough jobs will be available for the next decade. Only last week Secretary of Labor Goldberg stated that the economy must provide 10.5 million new jobs next year for the country to achieve full employment.

Our economy did not perform too well in the 1950-60 period when there were only 8.9 million new jobs to provide for. There were four recession periods in this decade and the level of unemployment ranged from 6 to 7-1/2 percent of the civilian labor force (including part-time workers).

Attention has been focused on unemployment in the reces[illegible] periods, but the rising level of unemployment in the non-recession periods has been frequently overlooked. This is so-called "structural" unemployment, which is primarily related to automation or changing technology. In the following "normal" periods during the 1950's, the average rate of unemployment increased as follows (seasonablly adjusted):

| | |
|---|---|
| Early 1951 to late 1953 | 3.1 percent |
| Mid 1955 to mid 1957 | 4.2 percent |
| Early 1959 to mid 1960 | 5.3 percent |

We will show also that the so called normal periods appear to have become progressively shorter.

In 1950, for the first time, service workers outnumbered workers in the production industries (manufacturing, agriculture, construction, mining) -- 51 percent to 49 percent. By 1960, employment in the service industries group had risen [illegible] 55 percent. The trend will undoubtedly continue in the [illegible]960's.

The important point about this shift is that, in a period [illegible] recession, services are the first thing to be sacrificed.

We were fortunate during the 1950's in that job opportunities were available in government, in trade and in service industries. They made up, in part, for declining employment in manufacturing, mining, et cetera. But we cannot a[illegible] that the service and trade industries can continue to absorb excess manpower from declining industries as well as p[illegible] jobs for new workers.

Employment expansion will not, as I see it, match our population or labor force growth. Employment expansion in retail trade cannot meet the expansion in population served, in view of the development in chain stores, supply and merchandising that has characterized the 1950's. Distribution employment -- the hard core of Teamster membership -- [illegible] grow absolutely, but less than proportionate to population growth, in view of the economies that touch all parts of the [illegible] line, including transportation and warehousing.

It is obvious that only increased "economic growth" can provide enough jobs for an increasing work force in our economy where day by day greatwr production is turned out by fewer workers. This means really only one answer, increased purchasing power to buy the products of industry.

As long as our economy expands, automation's impact on employment will be softened. We believe, therefore, that the only possible orderly solution to automation's impact on employment is increased economic growth, so that displaced workers can find other jobs and that new workers will also have jobs. Only then can we attain a satisfactory degree [illegible] full employment.

The Role of the Union: We recognize that progr[illegible] productivity and efficiency are a prerequisite [illegible] the welfare of our members and the industries which employ them. As a trade union we do not oppose such improved technological practices or processes, be it in our industry or industry itself. But as trade unionists and as Americans, we consider human beings and human welfare more important than efficiency. The welfare of our people is an integral part of our economic progress. At the same time, we must recognize that people without jobs cannot provide a market for the products or services of automated industry.

We know that there is no self-adjusting labor market mechanism which acts automatically to provide jobs. We believe that it is unjust and anti-social to make workers shoulder the entire burden of "efficiency" or technological change. Rapid and uncontrolled technological change can disrupt the lives of workers and their families and our nation. We must urge that thought be given to programs for reducing the harmful effects of such dynamic growth. We cannot afford to repeat the mistakes of our industrial histo[illegible] costs are involved. No technological change which is [illegible] expense of workers is true technological progress. We cannot afford to sell out human values simply to get more [illegible].

In essence, what we are asking for is [illegible] degree of social responsibility by industry, to weigh [illegible] human costs of displacement. Workers' and unions' acceptance of such change is based on assuring workers some degree of employment and income security, and a share in the benefits flowing out of such change -- in a word, to make the transition as painless as possible.

I could add to that statement that, in addition to calling for a higher degree of social responsibility on the part of industry, it seems to me that, if we [illegible] to meet the problem adequately, it is going to call for [illegible] increased responsibilities in this whole area on the part of the Federal Government.

There is a cultural lag -- in that [illegible] resist change. Social and economic progress is not automatic. It is the responsibility of officials in the [illegible] movement to implement changes through our inherently democratic institutions so as to make sure that our people are not [illegible]. This is our role -- and we cannot and will not shirk it.

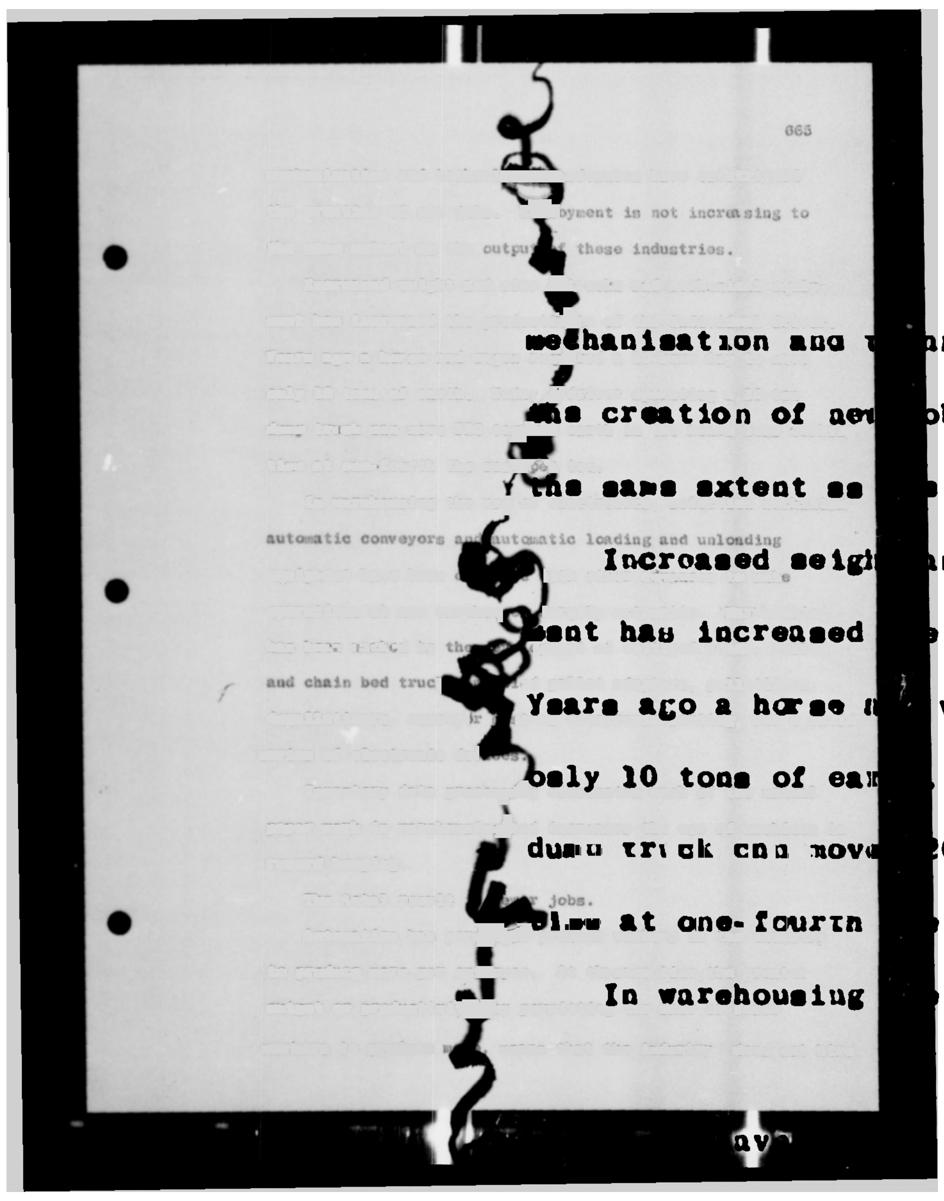
It is this apparent conflict between economic efficiency and social justice which our society must solve if we are to avoid economic and social catastrophe. Your committee is faced with a great challenge. You may count on our good faith and cooperation in doing whatever we can to assist in the solution of this problem.

The Teamsters' Union has cooperated with our employers in achieving efficient operations. Leading spokesmen in our employing industries have stated on many occasions that the Teamsters' Union takes "a realistic [illegible] commendable perspective of the values of transportation automation"; that "the leaders of the Teamsters recognize [illegible] these restrictive conditions and featherbeds are harmful to the industry..."; that the Union "is exercising the judgment of responsible unionism."

We do not resist automation, [illegible] we want to cushion its effect on labor. From labor's point of view, we want to reconcile, so far as possible, the continual growth of automatic technology with job security. We wish to alleviate the hardships of those displaced by automation and to protect the employment opportunities, earnings and work conditions of those retained on the job.

We have attached to this statement three reports describing technological developments in the following industries: trucking; fruit and vegetable canning and preserving; and dairies.

On the basis of the employment [illegible] productivity figures shown in these three reports, it is [illegible] to conclude that



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…oyment is not increasing to

outpu… these industries.

automatic conveyors and automatic loading and unloading

and chain bed truc…

…jobs.

mechanization and t[illegible]advances have outstripped the creation of new jobs. [illegible] the same extent as [illegible]

Increased weigh[illegible]nd size [illegible]trucks and mechanical equipment has increased [illegible] productivity of the individual driver. Years ago a horse [illegible] wagon req[illegible]red a 10-hour day to move only 10 tons of ear[illegible] Today [illegible] driver operating a 10-ton dump truck can move [illegible]0 to[illegible] earth in two hours less working [illegible] at one-fourth [illegible] cos[illegible] ton.

In warehousing [illegible] us[illegible] of electronics, selection mechanism,

[illegible] av[illegible] [illegible]ith other advances to ma[illegible] operations at new wareho[illegible] largely automatic. Warehousing has been marked by [illegible]pment of unitized loads, roller [illegible] [illegible]ed pallet adapters, palletizers, depalletizers, convey[illegible] [illegible]tems electronic sorting, and a whole series of electronic de[illegible]

Inventory data proces[illegible]ng eliminates much of the manual paper work in warehousin[illegible]and increases the use of machines in record keeping.

The total result

Automation has per[illegible] present workers in the industry to produce more per em[illegible]oyee. At the same time, the greater output or productivi[illegible]y permitting the same or fewer workers to produce [illegible] means that the industry does not hire new workers. This presents what might be called the "iceberg" effect -- unemployment which is not attributed to any particular industry but which is generalized. Employment opportunities do not exist for those entering the labor market or for those losing their jobs in other industries. This has been true even in the trucking industry which has shown marked growth over the past few decades -- [illegible] growth sufficiently rapid to counteract diminished job opportunities stemming from automation.

Other unions and their members have undoubtedly suffered to a far greater extent. We join with them, and with the rest of the American labor movement, in stressing that it is time to take action on several fronts to do something for the victims of automation-created joblessness. Without a sharper rise in jobs than has been taking place in recent years, our unemployment problem may well become a nightmare.

We should like to present to this committee a film entitled, Wonders of Automation, filmed in California's Imperial and Salinas Valleys. This 25-minute film portrays in vivid color the story of what changes and mechanization have caused in the produce industry.

Shown is the [illegible] machine in existence which combines harvesting with processing to send carrots off to market within ten minutes after they are pulled from the soil. This highly mechani[illegible] it moves at a constant eighth of a mile an hour through a field, gulping carrots at one end and expelling them at the other in cellophane packs -- you find them at any supermarket -- in an incredibly short time. This is a monstrous machine which actually eliminates one complete phase -- the conventional processing installation which normally is a permanent facility located in the nearest community anywhere from five to [illegible] or more miles from the field being harvested. For the purposes of contrast, the film shows such a permanent processing shed, along with the old way of harvesting.

Another [illegible] of the film treats with harvesting and processing of [illegible] lettuce. Hand-cutting of the lettuce contrasts with [illegible] machines which stitch cardboard cartons into which the lettuce is packed for hauling by truck to the nearest cooling center, located some miles from the field. Automation really begins at the cooling center where a huge fork-lift, in one speedy maneuver, unloads 320 or more cartons from a truck [illegible] matter of seconds. A network of conveyors within the [illegible] eliminates all human manpower except the hands of a half dozen workers in the essential process of chilling the lettuce and loading it into refrigerated trucks or railroad cars to be sped off to market.

We hope that this film will be helpful and instructive to this committee and to its staff, in showing the application of technology to some of the industries and operations in which our members are employed. The film also makes clear the many [illegible] in which mechanization is displacing workers.

National Economic Policies Must Support Collective Bargaining on Automation: Collective bargaining -- our trade-union tool -- has developed a variety of solutions to automation: greater wage increases; guaranteed employment on a year-round basis; shorter hours with no loss in take-home pay; broader seniority rights including preferential hiring rights for laid-off workers; retraining displaced workers at company expense; dismissal pay; improved pension plans, including earlier retirement and vesting of benefits after relatively short period of service; et cetera. These collective bargaining provisions constitute, in essence, a form of social cost of automation for industry. They call for a high degree of social responsibility by management.

[illegible] collective bargaining arrangements between a [illegible] an industry and a union are essentially only shock absorbers or stop gaps. They constitute merely the first line [illegible] defense against automation unemployment. Essentially they are designed tocope with the problem of "temporary"unemployment, rather than a situation where a man's job literally disappears under automation.

Unfortunately, collective bargining contract protections [illegible] create essential job opportunities. Collective bargaining alone cannot cope with the tremendous pressures of automat[illegible]sed unemployment. The complexity of the problem calls [illegible]n effort beyond that of any single union, single company, single industry, or combined labor-management effort.

Labor and management should continue to seek solutions to [illegible] labor problems flowing out of automation. But these pr[illegible] solutions, in the final analysis, can only be limited and [illegible]ry.

Collective bargaining affects only a fraction of our total economy. Other factors -- tax, monetary credit, and fiscal policy, et cetera -- are more far-reaching in their consequences. We must therefore develop a proper national economic and social environment to make the achievements of collective bargaining and labor-management cooperation successful.

National full-employment economic policies are called for -- both to generate jobs and to sustain purchasing power. As stated by the editors of Fortune earlier this year, "The vital task ahead is one of job creation, and the vital energizing currents here are national not regional in scope."

If technological progress is to be orderly, we must tackle the unemployment problem promptly on a national scale. The national well-being requires it; the confirmed existence of our present social and economic order demands it. Full employment must be our goal if we are to avoid the nightmare problem of displacement and adjustment created by technological "progress."

This calls for effective implementation of the Employment Act of 1946 so as to provide a constantly expanding economy. We need increased consumer purchasing power to match our growing productive capacity and increased business investment to further create employment and stimulate consumption.

We need allied programs consisting of wage supports, tax measures, training and retraining programs, relocation subsidies, and other security guarantees to technologically displaced workers and their families. But above all, there must be a job at the end of the line for those willing and able to work. Otherwise. the best social insurance systems and retraining and placement resources are of little use. This is why the full employment goal must be the capstone of our national policies.

In spite of our vaunted American standard of living, there are still millions of American families living on substandard incomes. In spite of our vast wealth. the gap between need and fulfillment in the public sector is enormous -- in education, health, slum clearance -- public housing -- metropolitan redevelopment, and preservation and development of natural resources. When we build school classrooms, hospitals, public housing. and all the other things our people need, private industry will have more business and people will have full employment.

As a nation, we have to adjust our thinking to an age of abundance, rather than scarcity, and automation helps to supply that abundance. Automation can be used to serve men and to free men. But if workers lose their jobs, or are never hired, because of automation, then the central purpose of our economic activity, a democratic society, is defeated. Economic progress must be equated with human needs. For this, we need a constantly expanding economy, to absorb both new workers and those displaced by technical advances. Full employment is the answer.

Unless workers' buying power advances as productivity increases, the economy will produce more than consumers can buy. Economic prosperity can be assured only if wages continually rise as the nation's productive power expands. Without a proper balance between production and consumption, full employment and prosperity are impossible.

Surplus wheat can be stored. Surplus workers -- and this is what automation is creating -- cannot. Our members are not accustomed to eating on a long-term basis. Their bills have to be paid today. They cannot obtain credit on the expectation of a job two years from now. All they know is that their jobs are evaporating and they are left high and dry.

People can't buy unless they work. Industry can't sell its products and services unless people have money. Industry looks to the consumer to keep the economy going. Eliminating people who make a product eliminates the market for this and other products. One cannot produce wealth with machines alone.

If we can develop crash programs for missiles and exploration of outer space, we can and must plan to solve the problems flowing out of automation. We must devise and develop tools to wipe out the specter of chronic unemployment, the sentence of economic death. Our natio faces no challenge so great if we are to maintain the stability of our economy and way of life. If past policies and methods are inapplicable to today's technology, let us devise new ones.

Why should we have full employment only in time of war? Certainly in time of peace there is work to be done -- job-providing work -- to improve the well being of people and the nation. Let us set our sights for abundance, not scarcity. Let us gear our policies for full production, not under-utilization of capacity and facilities. Let public investment join private enterprise in supplying people's needs.

The basic answer to the problems created by automation lies inthe prosperity of our country. A booming economy is needed to keep everyone -- except the fractionally unemployed -- at work. We definitely need to buoy up our economy. Let us make a reality of the Employment Act of 1946. If our economy is faltering, any solutions to the unemployment problem -- whether automation-created or otherwise-- are bound to be ineffective.

We suggest and recommend the creation of a National

Commission on Automation Unemployment composed of representatives of labor, industry, educators and the public, to study the impact of automation on our economy and to develop plans and programs to minimize its impact on workers, communities. and the nation. Unless we have the necessary research for realistic long-range planning, major dislocations will take place in our economy with resultant disaster to our human and economic resources.

We fully endorse House Bill 1766.

Such programs must be put into action as soon as possible. As I have already indicated, collective bargaining alone cannot shoulder the entire burden of coping with automation's problem.

We believe that such a Commission should consider, at the very minimum, the following measures:

Strengthening and broadening unemployment insurance coverage so as to meet the most pressing immediate financial needs of the displaced worker and his family;

Lowered retirement age under Social Security;

Redevelopment of depressed or declining areas;

A higher minimum wage;

Training centers operated in conjunction with our schools and State Employment Security offices to provide job training for young workers coming of age and for men displaced by technological change, to adapt them to the shifting job trends and occupational qualifications;

Relocation subsidies and other security guarantees to workers permanently displaced by reason of technological changes;

Strengthening the public employment service.

Certainly, our tax and monetary policies should be reviewed to assure that they are stimulating economic growth and job-creating potential.

We need a national economic policy. We need a massive attack on allaspects of the automation problem, by the combined efforts of government, labor and industry. We need to coordinate all our efforts if we are to forestall a nightmare of mass unemployment. Only by such combined efforts can we develop adequate solutions to this problem and unleash the forces which will assure and increase the future productive efficiency of our economy.

Your committee has a grave responsibility. We wish you well in this task, and we offer you our wholehearted cooperation.

Thank you,Mr. Chairman.

Mr. Holland. Thank you, Mr. Gibbons. We thank you for the film that you presented us.

I will try to arrange to have it shown before the whole Committee on Education and Labor.

Mr. Gibbons. We have left withyou Attachments A,B, and C dealing with specific industries in which our union predominates as the trade union, and the impact of automation on the workers in those industries. The whole story is there.

Mr. Holland. They will be included in the report.

Mr. Gibbons. Thank you, sir.

(The attachments follow:)

UPI-107

(TEAMSTER)

WASHINGTON--TEAMSTER UNION VICE PRESIDENT HAROLD J. GIBBONS APPEARED BEFORE CONGRESS TODAY FOR THE FIRST TIME SINCE THE SENATE RACKETS COMMITTEE CLOSED SHOP. ONE CONGRESSMAN SAID GIBBONS "HIT ALL HOMERUNS."

THE LANKY LIEUTENANT OF TEAMSTER PRESIDENT JAMES R. HOFFA TESTIFIED BEFORE A HOUSE LABOR SUBCOMMITTEE STUDYING THE EFFECTS OF AUTOMATION ON UNEMPLOYMENT. HIS LAST APPEARANCE WAS BEFORE THE SENATE COMMITTEE THAT WAS INVESTIGATING THE TEAMSTERS, HOFFA AND HIMSELF.

LIKE OTHER LABOR SPOKESMEN, GIBBONS SAID THE GOVERNMENT, INDUSTRY AND LABOR ALL WOULD HAVE TO WORK TOGETHER TO FIND NEW WORK FOR MEN REPLACED AT THEIR JOBS BY MACHINES.

AMONG OTHER GOVERNMENT STEPS, HE URGED STRONGER UNEMPLOYMENT BENEFIT PROGRAMS, LOWER RETIREMENT AGES UNDER SOCIAL SECURITY, HIGHER MINIMUM WAGES, AND JOB RETRAINING CENTERS.

GIBBONS, WHO HAS BEEN CALLED THE "EGGHEAD" OF HOFFA'S STAFF, LECTURED THE SUBCOMMITTEE ON ECONOMICS, COLLECTIVE BARGAINING AND TAX POLICY. CHAIRMAN ELMER HOLLAND, D-PA., SAID GIBBONS AND SEVERAL REPUBLICAN MEMBERS WHO QUESTIONED HIM "WENT A LITTLE BIT AFIELD," BUT TOLD THE UNION LEADER "YOU HIT ALL HOME RUNS."

ASKED HIS OPINION OF PRESIDENT KENNEDY'S REQUEST FOR HIGHER TRUCK TAXES, GIBBONS SAID HE HAD "GREAT SYMPATHY" WITH THE PRESIDENT'S PROBLEMS, BUT TRUCKERS ALREADY WERE PAYING THEIR SHARE.

HE SAID KENNEDY HAD "WORTHY GOALS," BUT HIS TAX PROPOSALS WERE MISGUIDED.

REP. ROBERT GRIFFIN, R-MICH., ASKED GIBBONS WHY HOFFA WAS FIGHTING TRANSPORTATION OF NEW CARS BY RAILROADS IF THE UNION WAS NOT OPPOSED TO MORE EFFICIENCY.

GIBBONS SAID IF RAILROADS COULD REALLY CARRY NEW CARS CHEAPER THAN TRUCKS, THE TEAMSTERS HAD NO COMPLAINT. BUT HE SAID THE RAILROADS WANTED TO CUT RATES UNTIL THEY HAD A MONOPOLY IN SUCH TRANSPORT AND THEN INCREASE THE RATES.

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Mr. Holland. Dr. Buckingham?

Dr. Buckingham. Mr. Gibbons, I think this is a very enlightening statement which you have made.I have a few questions, if I might.

On page 3 you state that "in a period of recession, services are the first thing to be sacrificed. Do you have any facts or evidence to back this up? The reason I mention it is because we are usually told that, when recession comes, it is the heavy basic industries like steel that are first to shut back, and then the lighter industries, and you get around to the services last. I know that they have already gotten around to the services in this recession but I am wondering if you have any evidence tobback up your statement that services are harder hit or hit earlier perhaps.

Mr. Gibbons. What I had in mind in making that statement were several things. For instance, all of the services available to people with income in the way of recreation and resort areas are one of the first thingswe eliminate from our budgets.

Obviously, when things get tight financially, things which we take for granted such as getting our hair cut and our shoes shined, these things seem to be the things which we get rid of rather than the basic things like housing, three meals a day, a suit on our back.

So I say to you that, in periods of recession, services are one of the hardest and first hit things that we have.

Dr. Buckingham. You said on page 3 of my copy of your testimony that the Teamsters' Union has been the only major trade union which has aggressively kept pace with the giant strides of the American economy since the end of World War II. How do you reconcile this with your earlier statement that services are predominantly hurt? Have you had an aggressive campaign?

Mr. Gibbons. That is exactly the answer. It is new members being brought in to offset the membership being brought in day after day. We have to organize 100,000 new workers to stand still. This is how we have organized through an aggressive campaign to maintain our membership.

I excluded that in my oral statement here.

Dr. Buckingham. Has the Teamsters concentrated in trying to organize the unorganized workers?

Mr. Gibbons. We have in the past three years spent more money for new organization work in our union, more money in the last three years than we expended in the previous twenty years, I would say. This is the only way we could maintain our position as a factor in industry, competent, able and strong enough to protect the membership which we are privileged to represent.

Dr. Buckingham. I was wondering if your major effort was on the unorganized or whether or not a lot of it was on workers who are already members of other unions?

Mr. Gibbons. No, this is not the case despite anything to the contrary.

To further this question which you raised, the NLRB records will substantiate my statement in that respect, number one; and, number two, there is a certain amount of transition taking place on the part of workers from one union to another constantly and the law of Congress as passed has been to facilitate this so that workers have a freedom to choose those they prefer to represent them. This is in a very small amount a natural phenomenon of the labor movement in any event.

Dr. Buckingham. Here on page 5 you say, "It is the responsibility of officials in the labor movement to implement changes through our inherently democratic institutions so as to make sure that our people are not hurt." Has your union tried to convince its membership that they should adjust to changes? Is this a problem that you have had?

Mr. Gibbons. I quoted from the industry the attitude of the leadership of the Teamsters Union. This leadership attitude is translated into messages to our membership which are policies which are enforced at that level in every instance. It is not arbitrary enforcement but a leadership which, by educational practices and processes, helps your membership to understand that you are not going to win by fighting against a one hundred foot truck rather than a sixty-foot; you are not going to win by fighting against a 300 horsepower truck which will average out thirty miles an hour against a dilapidated piece of equipment which will make twenty miles an hour; and all of the things such as the merry-go-rounds which are installed.

These are the things which we are meeting in our stride every day through bringing to our membership adequate understanding of the need for such economic progress.

Dr. Buckingham. If you have done this, and I do not doubt that you have from what you say, this, of course, is a very commendable thing because it is difficult for any kind of democratically elected organization to get too far ahead of its membership in trying to convince them that certain changes are for the good rather than for the bad.

An individual is likely to see his job affected and think that the whole world should stop.

Mr. Gibbons. There is a philosophy of leadership which in effect says, "There go the people. I must follow them for I am their leader." We reject this concept of leadership. Under President Hoffa, we are taking the initiative in instances wherever this problem presents itself to get out and work with our people and bring the kind of understanding to them which will result in the acceptance of this technological change which is besetting our industry as well as all other American industry.

Dr. Buckingham. I wonder if I may ask a few technical questions. You state on page 11 that full employment must be our goal. I think that everybody who has testified before this subcommittee from management, labor, and universities have all said this. We have tried to ask them what they mean because there are a lot of different definitions of full employment.

In most Western European countries they have managed to maintain an unemployment level of something like two percent without inflation.

We all recognize that there is going to have to be some unemployment because people are changing jobs all the time so that there is no sense in talking about 100 percent full employment.

Dr. Samuelson, who was here a couple of weeks ago, talked in terms of 3 percent as being a maximum level of unemployment consistent with full employment.

The President's Council of Economic Advisers is talking about 4 percent. I have heard others talk about 5 percent.

What would be your view on that?

Mr. Gibbons. Well, I am not interested in getting into a number game especially but one of the things which scares a person today looking at our economic situation and the legends of it is the easy acceptance we are getting to the 4 percent figure. We say to you that the 4 percent is not a legitimate figure in terms of full employment. We would much prefer to go back to the 2 percent figure which was once current.

What we are further concerned about is that, while 4 percent is accepted today, tomorrow we will be accepting 6 and the next day 7 percent as legitimate transitory type of unemployment. Just the additional 2 percent, let alone anything else which comes into acceptance, this adds upto tremendous personal tragedies throughout America. In a country which should be able to afford that kind of economic setting which would preclude such personal tragedies this is going to simply increase them. At least the trend will be to an ever increasing number of these personal tragedies which these economic figures actually represent when you go one stepbeyond them and not concentrate just on figures.

Mr. Holland. I happen to know that your union did not object to the increase from two to three trucks. I know it for a fact because I voted against it. You did a good selling job to your employees. I appeared before some of the unions to defend my stand on not increasing it. This was in Pennsylvania when I was a State Senator. You did a wonderful job of selling this idea to your employees.

What do you think of the 32-hour week?

Mr. Gibbons. We are not at all sure that alone this represents any answer. One of the problems we foresee immediately in terms of a shorter work week is an increase in moonlighting, among other things. The wage levels of our country today are not such as to preclude a man's desire to seek additional employment once he has completed a day's work. If you could reduce the work week without cutting down on the income and in addition put some kind of a penalty on moonlighting, such as any employer employing a person after he has worked at least 32 hours a week must pay him time and a half, if you put something of this nature into a law which now becomes difficult of enforcement and becomes a complicated thing, then maybe you have an answer and maybe the 32 hour week will make a contribution.

Mr. Holland. Does that apply to gypsies in the trucking business?

Mr. Gibbons. I say it is a very complex thing in terms of enforcement. In terms of gypsies, I do not know how you would apply it. We have many a person working in a warehouse 40 hours who will push a cab for five or six hours a night or take a second job in a spaghetti plant or some other form of employment.

We are not excluding, incidentially, the concept of the shorter hour work week because we think eventually we are going to come to that.

I think we should come to it in terms of greater cultural and recreational opportunities for the people of this country.

Mr. Holland. I have one other question: Do you think it would be advisable to spread out the work by taking trucks off the highways on Sundays?

Mr. Gibbons. No, I do not think that this represents a spreading of the work. I think this would be a penalty such as the trucking industry could not afford especially if the trains are rolling and the planes are flying and the boats are moving; but I would say to you that one way of spreading the work might be in terms of enforcing or gaining greater numbers of vacations in a given year. Maybe we will get two 3-week vactions in the course of a year. Maybe we will get eleven paid holidays instead of five. Maybe we will get certain other opportunities for people to get away from the job without loss of income.

Mr. Joelson. Mr. Gibbons, on page 10 of your statement you discuss the solutions to automation that are to be arrived at by collective bargaining and one of them is greater wage increases. How would greater wage increases institute a solution to automation?

Mr. Gibbons. These items which are listed in connection with the solutions I intended to qualify later by saying that the things which the trade union can do are not truly the solid solutions to the problems facing us. I think it calls for much wider policies and practices in the field of economics to solve this problem.

On that one issue that you did pick up, let me say to you that I had occasion to read recently an editorial in the New York Times which, after analysis of the problem facing America, points out that the only answer to meeting the problem of unemployment is to have an expanding economy, and it says that the answer to an expanding economy is building the purchasing power of the American people.

I say to you that the trade union movement in its quest for higher wages is contributing to the well being of this country by increasing the purchasing power.

Unfortunately, there are not enough millionaires to buy back theproducts of our mills and factories. The only way industry can expand and the only way we can have this expanding economy is through adequate mass purchasing power and higher wages sought by trade unions is one of the real contributing factors to this.

Mr. Joelson. I do not doubt that, but my question is how would this impede the damaging effects of automation?

Mr. Gibbons. There are no damaging effects of automation per se. It is what we do with the results of automation where we fail, in the face of automation, that the economic impact comes about.

I do not want to do anything which will impede automation as such but, as long as the people are able to buy back the products of automation, we are going to have an expanding economy.

With any displacement of workers through more efficient methods of production, these workers will be immediately absorbed into new jobs if we have this expanding economy.

The only way we can have it is through mass purchasing power. The only way we can have that is through increased wages, so that it is a chain effect in reaction to the thing. But automation is not to be cured. I do not want to cure automation. I want automation to prosper because I think on that basis America will have an ever rising standard of living. The American dream as such that we talk so much about will now have an opportunity to come about if we can truly increase our efficiency.

Aside from these material benefits which go to America, there is an aspect which I have not attempted to develop here which is of tremendous significance to us today in 1961 and into the sixties as the contest with communism, the battle of the east and west becomes increasingly sharp. That is that we cannot meet the responsibilities which are forced on this country because of its world leadership position, a position which we did not seek necessarily but which we are stuck with. We cannot meet those responsibilities unless we have an ever-expanding, thriving, healthy domestic economy.

There are sheer economic burdens placed upon us through that job that we have taken on, that responsibility which is ours whether we like it or not and which cannot be met by this country unless we have this kind of an expanding economy, this kind of a mass purchasing power as a base for a healthy and growing economy.

Mr. Joelson. I just want to state that I agree with you as to the need for an expanding economy but I do not necessarily see the relationship between high wages and the elimination of the hardships of automation.

Does the Teamsters Union have any minimum wage below which they will not negotiate a collective bargaining agreement?

Mr. Gibbons. No, we have to, as all unions must, consider the economic setting in which we sit down to negotiate wage increases. Where we are dealing with a healthy, growing, expanding, financially sound industry, we can expect and obtain and fight for a particular wage.

On the other hand, in a given situation where these factors are not present, we cannot do that in other industries.

For instance, one of the industries in which we find difficulty in obtaining comparable wages to those which we have obtained in trucking is when we get into certain phases of the food industry. We are not able to obtain the same kind of wages and same kind of fringe benefits; but always collective bargaining is tempered by the economics of the situation facing the negotiating team.

Mr. Joelson. I have heard it stated that in metropolitan areas the teamsters have signed certain contracts, not for the teamsters but for production workers in industry, for as little as $1.58 an hour, is that correct?

Mr.Gibbons. No, it may very well be that you will find instances where the Teamsters Union have workers under contract for $1.15. I know of none at the moment but I am not going to say that you do not have particular information in that respect. But, if you do, I will bring you contracts from the ILGW or other unions at a comparable level and this is the problem. You start organizing and negotiating contracts for dress workers in the distressed areas of West Virginia or Pennsylvania and you are not going to be able to walk in there and get the same rate for a girl working on $1.49 dresses as Dubinsky may get when he is operating in the garment district in New York in another phase of the same industry. If you will find a $1.15 rate in the Teamsters Union, I will be amazed and surprised; but, if you do, it happens that in the particular environment in which you found that rate you will find justification for it or it will not be a Teamsters contract.

Mr. Joelson. In all fairness and all candor, I want to say that I have heard this and maybe I should not state it as a fact. I did not say this to debate with you. I wanted the information.

Mr. Gibbons. You see. there are marginal industries and there are marginal companies, and, if you find a $1.15 rate, it may represent a 40 cent increase in wages which these workers obtained as a result of joining the Teamsters. It may represent a 15 cents an hour increase which is a substantial gain for those workers from where we found them. You will find that they are probably newly organized if such be the case.

We just came through some negotiations in the twelve Central States with a trucking contract for the twelve Central and some eleven Southern States. There the employers came in to say that we were not entitled to higher wages and compared them with the wages paid steel workers and auto workers and with wages paid in general manufacturing in those States; and, in every instance. the employers demonstrated by good sound statistics that our wages were way up, that our people were earning $9,000, $10,000, up to $18,000 a year, our truck drivers. We are proud of our wages in the Teamsters Union and will be proud to lay our contracts beside any in America, and our practices likewise.

Mr. Holland. Mr. Garland?

Mr. Garland. Mr. Gibbons, what is your definition of productivity?

Mr. Gibbons. Productivity is the production obtained in a given time period by a given effort expended.

Mr. Garland. Man hours?

Mr. Gibbons. Man hours or machine, as it were. It is really a product not so much of the physical labor that is put in. It represents basically a money investment increase. This is the thing which we talk now. I forget the Government official who seen ninety billion dollars' worth of obsolete equipment in the American economy. We are talking about automation that is only beginning, and the crime is that I sit here trying to be an expert on automation and neither I nor any one else in this country knows what we are talking about because no one has the figures on automation. This is a terrible crime about one of the most serious economic problems facing us that nobody literally has the facts. I think it is only beginning and I think that there is going to be a tremendous growth in this particular area and I think it is the best thing that can happen for America; and, if it does not happen, we are in serious trouble on the international front.

Mr. Garland. You say in essence that economic prosperity can only be assured if wates are continually increased as our productivity increases.

Mr. Gibbons. I did not necessarily say that this is going to result or this is the only way you are going to arrive at this result. I say to you that we have a right to participate in the progress that is being made. We do not think, for instance, that industry has the right to garner unto itself all of the benefits of increased productivity. We think the workers have a social right to share in it and we think the consumers of America have a right to share in the particular progress through lower priced products. We fight just as hard for that as we do for the wage increase that we think should come out of automation and we think that the investor should get a return for the increased investment he makes.

We do not think that industry has any right, legal, moral or otherwise, which would give them the right to take completely the benefits of automation and technological improvements. This is a social product, not the product of any one man's mind.

Mr. Garland. Do you recognize that industry does need to have these advantages?

Mr. Gibbons. They have to if they are going to re-invest, absolutely, and we think the key to continued economic progress it the reinvestment program. That is why we talked in terms of reviewing the tax laws. That is why we talked in terms of reviewing our fiscal policies, and our credit establishment. All of those should be integrated into a well-rounded financial aspect for this country which will provide an America that will stand up in the international front and assume all of the burdens with which we are faced. Specifically we call in here for, in addition, the "increased consumer purchasing power to match our growing productive capacity." We need "increased business investment to further create employment and stimulate consumption." This is a basic and vital part of any economic program.

Mr. Garland. You advocate tax reforms, do you not?

Mr. Gibbons. Well, I say to you that we should take a good look at the present tax policies in an effort to see where they fit and how most intelligently they may need to be altered to contribute to this basic goal of an expanded economy and a prosperous America.

Mr. Garland. These goals that you call for in your statement here this morning all involve further Government spending and increased Government spending.

Mr. Gibbons. It does not necessarily call for increased Government spending.

Mr. Garland. I refer to the program on the last page there.

Mr. Gibbons. It calls for expenditures in the public sectors of our economy, yes, sir, as one of the ways in which we can create jobs in the face of a declining situation on jobs and one of the ways in which we can stimulate private employment. This, I think, is a unique economic fact, that it so happens that the private sectors of our economy are providing the least numbers of jobs in America.

We talk about the vaunted private enterprise system. Today it is providing a decreasing number of jobs.

This is not a situation which one can be proud of. This is a situation which can only lead to catastrophe in terms of a private enterprise system if it is permitted to continue. This is the thing which concerns us. If this involves spending Government money, I am not averse to that. We do not run away from that, but we are not particularly putting our whole case on the base of just sheer spending of money on the part of the Federal Government.

One of the things which is an end product of Government spending at the moment could very well be this expanding economy with the resultant increased tempo of economic activity, with an increase in Government income literally through lower taxes, with lower taxes; but, when we sit back and let an economic contract, then the burden of Government -- which is not easy to shirk--on each individual citizen becomes tremendously greater and on each individual business becomes a greater and greater burden; so that, if we can once get this ball rolling and break out of the shackles which we are currently bound by, we can ease the taxation problem of business which faces us today.

This can become a rapidly moving thing which will carry of its own weight.

Mr. Garland. What are these shackles to which you refer?

Mr. Gibbons. The shackles are this tremendous mass of unemployed workers of this country. They are not going to lie in the streets of America and die. America is going to have totake care of those workers, take care of those kids. They are going to have to feed and clothe them and provide housing. In every community today it is taking place. They just reinitiated in St. Louis, my home town, the free food system. This is going to be paid for out of taxes. This is one of the shackles which I say to you today is burdening industry and reducing its capacity to move forward on the creation of new jobs and expanding employment opportunities, of meeting its responsibilities to the American people to provide for an ever increasing standard of living. This is a responsibility of industry, a responsibility which industry cannot shirk. Today it has these difficulties to cope with.

We are here trying to say some things which might, if implemented through Government action, help industry meet these problems which face it and aid and assist our whole country.

There is nothing of merit in a shrinking company. There is nothing there but the creation of new and more difficult social and economic problems day by day. They breed them.

If we can reverse this trend through some of the policies we advocate, then you have easy solutions to a lot of difficult problems which face us as of today. It is a matter essentially of almost changing our thinking from an economy of scarcity to an economy of abundance.

We have solved largely the problem of manufacture, the production of goods.

It seems to me that we should concentrate a little more now on seeing to it that we solve some of the bottlenecks of distribution of these goods.

Mr. Garland. Mr. Chairman, I will yield the rest of my time to Mr. Griffin.

Mr. Griffin. Mr. Gibbons, I read with interest on page 6 of your testimony that "We do not resist automation," speaking of the Teamsters Union. Yet a good many of us have been reading in the papers lately about the fact that the railroads apparently have developed a system for carrying new automobiles which seems to be in some people's mind more efficient than some of the methods that have been used.

We have been reading about the fact that apparently some acid or something was thrown on new automobiles in Pennsylvania.

We cannot determine apparently who did it, but we do hear that Mr.Hoffa in his concept of leadership is fighting tooth and nail the use of the piggyback method in the new development of railroad cars to carry new automobiles.

This does not seem to square with your statement that the Teamsters do not resist automation. Perhaps you could elaborate on that.

Mr. Gibbons. You areentitled to be enlightened on it because, obviously, there is a lack of facts in your discussion at the moment when you discuss it in the terms that you have.

Mr. Griffin. I would be glad to be enlightened.

Mr. Gibbons. Number 1, we are not opposed to the railroads, if they are a more efficient carrier, carrying automobiles. We are protesting and we are endeavoring to get Congress to investigate the question of whether or not the present members of the ICC have not distorted the intent of Congress in legislating in that area by permitting the railroads to violate the ICC regulations by selective rate-cutting to the detriment of competitive forms of transportation.

Now, it is quite simple for the railroads with their tremendous capital investment to take on thehauling of new automobiles in this country and continue it for a year or two years if necessary at rates whichrepresent a heavy loss to those railroads and then, once they eliminate the highway automobile-carrying industry, they will now take those same rates and push them back up like they have done with manyother items of freight which railroads are particularly adapted to carry.

What they are doing today in America in the new car hauling business is utilizing their out of pocket expenses literally to establish the rate which they are now charging, and undercutting the trucking industry.

We have no quarrel, and I repeat it and we will say this anywhere, we have no quarrel with the railroads carrying the automobiles as part of their freight load if it is done on a decent level, a competitive basis, but this is not serving the trucking industry. It is not serving our members and it is not serving America to permit this kind of distortion of the intent of Congress in the application of the ICC regulations in this specific instance.

Mr. Griffin. Then it is fair to assumethat, if Congress does review the railroad practices as far as their rates are concerned and the application of the ICC rules and regulations and finds that they arenot abusing them, that then the Teamsters will no longer resist this automation.

Mr. Gibbons. Well, if it is determined that the railroads are entitled to carry new automobiles based on efficiency and as a result squaring completely with America's transportation program, the ICC law whichprovides for a balanced kind of transportation industry with proper consideration for trucks, airlines, railroads and water movement of freight, if this is found true, we will say Godspeed to the railroads. They can have that freight. But we are giving you everything we know about this problem, and we have investigated it very thoroughly and are joined by top members of Congress in this concern. Senator Monroney from Oklahoma is one of the people who is concerned likewise about what is happening to this industry.

We are concerned abat this and we are joined in this by good people and think we are one thousand percent right.

I say this to you, and I represent President Hoffa and this is his attitude toward this problem as well as mine. It is an enlightened attitude, an intelligent attitude, and an attitude that is good for America.

Mr. Griffin. Mr. Gibbons, you have in your discussion of automation talked a good deal about organizing the unorganized and about your methods of increasing wages and so forth. A good many people in the United States are concerned about reports that the Teamsters in their contract negotiations are driving toward a goal of having all contracts as far as transportation is concerned controlled by the Teamsters, expire on the same date.

Mr. Holland. I am sorry, but I am going to have to call you out of order. We are studying automation. We are not studying the contracts and the effect of driving anyone out by prices.

I think that we should consider the subject that we are studying, and that is automation.

Mr. Griffin. I have no further questions, Mr. Chairman.

Mr. Gibbons Mr. Chairman, I want the record to show that I would have been very happy to have discussed that question if it had been permitted.

Mr. Holland. I do not think that we should have other items taken into the subject matter.

Mr. Griffin. That is all, Mr. Chairman.

Mr. Holland. Mr. Bruce?

Mr. Bruce. Of course, as you, Mr. Gibbons, have said, we do not know exactly what has caused unemployment. It is very difficult, Mr. Chairman, to draw a line when we are trying to determine the causes of unemployment and I trust that I may ask my questions covering a broad field to determine certain facts.

Mr. Gibbons, are you familiar with the average margin of profit of the trucking industry in 1960?

Mr. Gibbons. I know it is a very small margin of profit largely across the entire industry. I think this might be true excepting in the heavy monopoly sectors of our economy.

In any of the sectors of our economy where you do not have a heavily monopolized situation you will find a rather wide range of profit margin. Ours, if you were to strike an average, would be a rather low margin of profit.

Mr. Bruce. We as members of Congress have received a message from the President concerning financing of the highway program and I believe, Mr. Chairman, this has a direct relationship to automation because anything that could conceivably cause industry to move more rapidly into the field of automation would directly have a bearing upon our studies.

You are familiar, no doubt, with the recommendations made by the President on taxes toward the truck industry.

May I ask you, sir, do you feel that this would complicate the employment situation if these taxes would be enacted as proposed by the President?

Mr. Gibbons. Let me first preface my remarks by saying that I have great sympathy for the President of the United States today trying to work out solutions of the manifold problems which face our country. I do not want to be too arbitrary in disagreeing with any proposal he may want to make. I want to view it as sympathetically as I can, but I would disagree with him on this one because, number one, we feel that the industry itself is more than meeting its burden of taxation in terms of highway construction and maintenance. We think, secondly, that an additional burden placed on the trucking industry is going to have serious economic impact on the trucking industry to the detriment of our country and to the defeat, literally, of the goals, the worthy goals that the President is striving for.

We do not think that this is the answer. We are not rejecting out of hand anyconsideration of increased taxes by our industry but we will be very happy to send you a broader statement on this subject which is in the form of testimony which we gave here before one of the congressional committees specifically on this question.

Mr. Bruce. But your feeling is that, if the recommendations were approved as given in the message from the President, that it would create unemployment in the trucking industry. Is that your testimony?

Mr. Gibbons. Yes, it would be unfair and would have a bad economic impact.

Mr. Bruce. Do you believe that nonmonopoly is a factor in unemployment?

Mr. Gibbons. I think that monopoly is a serious problem in terms of employment opportunities in this country for the American people. I think it borders on the ridiculous when an industry like steel is able to make a profit operating at one-third of its capacity. There is something wrong with the pricing in that kind of a situation and this pricing is not only resulting in unemployment where they can sit back and not grow concerned about their productive capacity but in addition I think it becomes an economic burden on other industries which this steel industry is serving.

What I am saying about the steel industry in terms of monopoly practices applies across the board in all sectors of our economy which are heavily monopolized.

Mr. Bruce. Mr. Gibbons, what other union represents the trucking industry besides the Teamsters Union?

Mr. Gibbons. Literally we tend to dominate the field pretty well, especially in what we call for-hire or commercial trucking. We likewise do even in terms of private trucking, but you will find that, in the automobile industry, General Motors may have 150 in-plant trucks. Those will be driven by members of the Auto Workers Union.

You will find in the rubber factories some rubber workers driving vehicles.

Mr. Bruce. Is it not true that, as far as the truck transportation industry across the country, you are almost alone in the field?

Mr. Gibbons. Almost alone, I would say. I know of none unless it is an isolated independent union here or there who may have a single commercial trucking firm.

There is one big independent, incidentally, which Al Weiss to my mind, in the city of Chicago, called 705. It used to be a section of our union. It split off in the far past and it ??? still remains today an independent union, working very closely with our organization.

Mr. Bruce. You could reasonably assume then that actually the Teamsters have a monopoly on the trucking industry?

Mr. Gibbons. I would not use the word "monopoly" because it is a distortion of the English language to use the word monopoly in terms of human beings and trade unions in the same sense that I used it in terms of an industry.

It is one thing to say to a thousand pounds of cement that "You sit in that warehouse and stay there" and thus monopolize and be in control of it. I want to see somebody do that with a thousand truck drivers. I have been in their meetings.

Mr. Bruce. So have I.

Mr. Gibbons. They are not about to be monopolized by Gibbons, Hoffa, or anyone else in this country. They are free born Americans, very aggressive generally, with good minds and a real concern about their independence and their freedoms.

Mr. Bruce. Your national union does have a final say on contracts, does it not?

Mr. Gibbons. No, we do not. Specifically by constitution which is enforceable in any court of the land by any individual member we are prohibited from telling a member what contract he will take, whether he will go on strike or when he will end his strike.

Mr. Bruce. You do not, for example, Mr. Gibbons, move union leaders from St. Louis, for example, to other areas of the country where there is a negotiation under way?

Mr. Gibbons. Certainly we utilize whatever skills are at our command and go into the universities and get people to help us and assist us in representing our workers.

Mr. Bruce. Y u do throw, as far as bargaining is concerned, the full weight of the national Teamsters Union into any given area if it is necessary?

Mr. Gibbons. I wish this were true. Unfortunately, it is not necessarily true. It is not too easy to mobilize entire resources. But by and large the statement is correct that we try to mobilize whatever strengths in terms of the representation of our people wherever that happens to be.

Mr. Bruce. You made a statement on what we term moonlighting a while ago. When, let us say, we have a 32 or 30 hour week and you put a penalty on the individual, are you not curbing his very basic initiative? Are you not going contrary to human nature in that type of thing?

Mr. Gibbons. Well, of course, if we want to live in a civilized society all of us must give up certain of our rights. Otherwise we revert back to the jungle. Therefore, you have to evaluate what restrictions society places on an individual. Whether we like it or not, if we decide to be civilized we are going to have to put up with this. I do not believe that making an employer pay time and a half for a worker who has already finished a full work week is curbing that worker's right. It is making possible job opportunities for men with families, hopes, aspirations, giving them an opportunity to make a dollar and be able to live. This I think is a good which far outweighs any penalty which we might place on an individual in the way of restrictions and that is the rationale of all restrictions in society. It is trying to compare what we will sacrifice for a higher good.

Mr. Bruce. I am coming back to what Mr. Garland questioned you about a while ago. You say wages must continually rise.

Is it necessarily related that increased wages mean increased purchasing power?

Mr. Gibbons. I did not say that they must continuously rise. I think increased wages are certainly called for at the moment but it does not follow in terms of good economics that increased wages will result in increased purchasing power. Unfortunately the history of economics in this country is that prices ride the elevators while wages climb the stairs, and sometimes, while there is an ever increasing wage level, there can be a lowering actually of consumptive power on the part of the workers. He may be robbed in the process and this we are opposed to.

In case anyone is interested in it, we are against inflation. We join every one in that position.

Mr. Bruce. Do not your recommendations tend basically to be inflationary?

Mr. Gibbons. No, we're saying that at the moment somebody better buy back the products of industry at an increasing rate or there are not going to be ten million new jobs, which is the hope of Secretary Goldberg. There are not going to be ten million new jobs unless somebody starts buying.

The only way you can buy things in a private economy such as ours is through having effective wherewithal which means money in hand when you approach a store.

The only way we are going to get money in the hands of the employees is to give them jobs. You can hand it out in the form of a dollar but I do not think any of us is going to endorse that as a means of building up purchasing power. That is why I say that it is time to spend some money in terms of wages and creation of jobs in order to get off of dead center where this economy seems to be unless it is already rolling back at an increasing pace.

Incidentally, in terms of this question of inflation, let us not make the error of equating increased wages with increased labor costs. If you want an authority on it, go back to Mr. Charley Wilson, head of General Motors, who cannot be called a labor leader, cannot be called a leftist or a radical or the least bit unorthodox. Here is a gentleman who, when he signed a contract with Walter Reuther providing for automatic wage increases every year, said, "As we give more wages we intend and anticipate and are certain that our labor costs will go down during this period," and this is the important thing we have to remember about increased wages. They do not necessarily result in increased prices. They do not necessarily result in increased labor costs. It becomes a matter now of whether or not we are getting increased productivity. With increased productivity we can afford to cut prices and reduce our costs of operation.

Mr. Bruce. Do you believe that spending in the public sector largely results in increased productivity?

Mr. Gibbons. No, I believe in it as good economics and as sound social justice -- that is what I believe -- and a better America.

Mr. Bruce. I ask you this question.

Mr. Gibbons. And an alternative one might say to unemployment and tremendous economic waste which is taking place in America today, a waste at a cost we cannot afford. If we ever could we certainly cannot afford it today.

Mr. Bruce. For example, where we now have the request for a dollar and a quarter minimum wage, is this not basically the result of inflation, so that we have to constantly look at and have requests to increase the minimum wage. Is it not because of the drop in the purchasing power of the dollar?

Mr. Gibbons. It is a result of inflation which, if you want the answer to, you look to the monopolized sectors of our economy.

Mr. Bruce. All of them?

Mr. Gibbons. This is in a sense part of it and it is in a sense a very inadequate answer to the results of inflation for the low paid workers of this country. It is a very inadequate answer and it is unfortunate that we have to resort to this kind of answer. It should be that everyone should be making enough to provide a decent enough standard of living to be able to say, "Yes, we in America have prospered under our form of Government. We in America have prospered and our needs have been met under a private, capitalist, free enterprise system." But unfortunately, through some of the practices which are common today in industry which are permitted to occur, these bad social conditions exist and we are coming up with minimum wage laws which I say are inadequate and unfortunate but necessary in simple justice to these people who are working today at wages below which they cannot meet the simple costs of the minimum standards of living.

Mr. Bruce. Mr. Gibbons, I have one more question.

What do you think would happen -- and I am going to open this wide open for reply -- if the Congress of the United States took a look at the monopoly situation and decided that maybe labor organizations too constituted a monopoly and passed legislation which outlawed industry-wide bargaining and put it down to company-wide bargaining?

Mr. Gibbons. If Congress were to look at the economic situation in America, especially the monopolized sectors of our economy and then concluded that labor too is a monopoly, I would say that Congress is making a very serious and fatal mistake in its thinking.

I do not believe that Congress will ever come to the day that they are going to consider unions as monopolies.

They may very well come to a day when they will outlaw national collective bargaining. I will hope not. But they will do it for other reasons than that we are monopolies. They will do it because certain spokesmen for big business in this Congress will be fighting shortsightedly in an effort to protect the interests of big business and destroy the effective bargaining power of trade unions which they possess today in the form of national collective bargaining.

Mr. Bruce. Of course, that is a classic defense of anybody that questions union power.

Mr. Gibbons. It is not a classic defense. The nice thing about that defense is that we can point to industries who were sick and who are now well and who for years have bargained on a national basis.

I cite you the ILGWU in the dress industry.

I cite you the Mine Workers.

You show me a healthy prosperous growing industry where national collective bargaining has been barred and I will buy you a package if it represents economic good sense and if it represents something that is good for America.

Mr. Bruce. May I ask one more question?

Mr. Holland. Yes. Keep it on automation.

Mr. Bruce. I will rest.

Mr. Holland. Go ahead.

Mr. Bruce. No, that is all right.

Mr. Holland. We certainly thank you, Mr. Gibbons, for coming here. You have given us a very enlightening bit of testimony and covered the waterfront.

This committee is trying its best, on a nonpartisan basis, regardless of what other people might think, to get at the base of what we should do and what should be done. Our big problem is education, as you know. We have had people come in here who knew automation from one end to the other and we have asked them what we should retrain our people for and they have told us that they do not know.

We are trying to do this. We are having a little trouble, for your information, in getting IBM and the different groups who are creating automation to come before us. I see their point. They say that they cannot divulge what they are working on because it would divulge their hands to their competitors.

I do think that this country has to know what is in the works if we are going to try to bring our schooling up to a standard so that those one and a half million kids coming out of school have an education sufficient to enter the industrial field, and they are not ready at the present time.

We thank you for coming here and we enjoyed hearing your story.

I want to invite the entire Education and Labor Committee to see the film that you have very kindly presented to us.

I think you have faced every problem. You even went a little afield. We were glad we did because they were all home runs.

Mr. Gibbons. Thank you, sir.

Again my sincere appreciation for the opportunity to be with you men and I hope that my statements have contributed somewhat to the enlightenment of the group.

Thank you.

Mr. Holland. The committee will recess until two o'clock today.

(Whereupon, at 11:35 a.m., the subcommittee recessed to reconvene at 2:00 p.m., this same day.)

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ADMINISTRATIVE FILE
Automation
X
X

# STATEMENT

OF

HAROLD J. GIBBONS

EXECUTIVE VICE PRESIDENT

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

BEFORE

THE

SUBCOMMITTEE ON UNEMPLOYMENT AND THE IMPACT OF AUTOMATION

OF THE

HOUSE COMMITTEE ON EDUCATION AND LABOR

WASHINGTON, D. C.

APRIL 12, 1961

## Automation and Unemployment

Mr. Chairman and members of the Committee, we appreciate the opportunity to appear before you today on this vital issue of automation and unemployment. We are glad to join with other representatives of organized labor in calling attention to the impact of automation and technological change not only on our membership, but on the economy at large. It is appropriate, I believe, for us, as representatives of workers who bear so much of the costs of "progress" in the form of loss of jobs, shorter hours and reduced income, to bring you their story and to urge that appropriate action be taken not only in their behalf but for the well-being of the country. Our interest extends beyond the more than 1½ million Teamster members and their families. It extends to the entire nation -- because this is indeed a national problem.

The Committee is examining the impact of automation on unemployment. I prefer to couple the terms "automation and technological change," since from an economic viewpoint automation is but another, more advanced, stage in the evolution of technology. In essence, these terms mean the use of technically improved or advanced machinery, methods [illegible] equipment, introduced to obtain greater productivity at less cost, and nearly always requiring less manpower in producing or distributing more goods, materials or services.

As contrasted with mechanization, automation is applicable to a wide variety of industries and work processes. Its potential application is virtually limitless and it is proceeding more rapidly than other technological changes of the past. 7

Regardless of the term used, the end result for workers is the same: unemployment, total or partial. And for new members of the labor force -- a shrinking labor market in which jobs become increasingly difficult, if not impossible, to obtain.

## Economic Background

Automation & Recession

The impact of any change is related to the environment or circumstances within which the change takes place. Automation is feared today because it is speeding up and rolling into high gear at the same time that our economy (over the last decade) has been faltering and hesitating. Labor properly feels concern over job security and employment opportunities when joblessness rises from month to month. Certainly, the economic climate seems to hold out little hope for work opportunities.

Unemployment has been higher after each recession. The economy is generating new jobs at a slower rate than the growth of our labor force.

5 Our population is up; our work force is up; but the number of jobs in the private economy is down. Private industry (as compared to government) is now producing fewer man-hours of work than in 1953.

6 Manufacturing output as a whole has risen 17% since 1953 but employment has dropped 5%. Bituminous coal output in 1959 was 35% below the 1947-48 average; employment was down more than 60%. In short, fewer people are turning out more goods. Workers should be rewarded for this, not penalized.

The U. S. Department of Labor expects the labor force to increase by 13.5 million between 1960-70, as compared to 8.9 million in the previous decade. At the present time there is nothing to indicate that enough jobs will be available in the next decade. Only last week Secretary of Labor Goldberg stated that the economy must provide 10.5 million new jobs next year for the country to achieve full employment.

Our economy did not perform too well in the 1950-60 period when there were only 8.9 million new jobs to provide for. There were four recession periods in this decade and the level of unemployment ranged from 6 to 7½% of the civilian [illegible] force (including part-time workers).

[illegible]ttention has been focused on unemployment in the recession periods, but the rising level of unemployment in the non-recession periods has been frequently overlooked. This is so-called "structural" unemployment, which is primarily related to automation or changing technology. In the following "normal" periods during the 1950's, the average rate of unemployment increased as follows (seasonally adjusted):

| | | |
|---|---|---|
| Early 1951 to Late 1953 | 3 yrs | 3.1% |
| Mid 1955 to Mid 1957 | 2 y | 4.2% |
| Early 1959 to Mid 1960 | 1½ y | 5.3% |

Moreover, the so-called "normal" periods appear to have become progressively shorter.

In 1950, for the first time, service workers outnumbered workers in the production industries (manufacturing, agriculture, construction, mining) -- 51% to 49%. By 1960, employment in the service industries group had risen to 55%. The trend will undoubtedly continue in the 1960's. The important points about this [illegible] is that, (1st) in a period of recession, services are the first thing to be sacrifice[illegible]

The impact of auto is clearly shown because in industry during the output of manufacturing industry continued to drive

[illegible] were fortunate during the 1950's in that job opportunities were availab in [illegible]rnment, in trade and in service industries. They made up, in part, for [illegible]g employment in manufacturing, mining, etc. But we cannot assume that [illegible]ice and trade industries can continue to absorb excess manpower from [illegible]dustries as well as provide jobs for new workers.

[illegible] nt expansion will not, as I see it, match our population or labor force [illegible] oyment expansion in retail trade cannot meet the expansion in popula- [illegible] in view of the development in chain stores, supply and merchandising [illegible] ized the 1950's. Distribution employment -- the hard core of Teamster [illegible] may grow absolutely, but less than proportionate to population growth, [illegible] he economies of scale that touch all parts of the supply line, including [illegible] tion and warehousing.

It is obvious that only increased "economic growth" can provide enough jobs for an increasing work force in our economy where day-by-day greater production is [illegible] d out by fewer workers. This means only one answer: increased purchasing power to buy the products of industry.

As long as our economy expands, automation's impact on employment will be [illegible] ftened. We believe, therefore, that the only possible orderly solution to [illegible] on's impact on employment is increased economic growth, so that dis- [illegible] ers can find other jobs and that new workers will also have jobs. [illegible] y then can we attain a satisfactory degree of full employment.

he Role of the Union - our immed Concern

[illegible] ze that progress, productivity and efficiency are a prerequisite [illegible] re of our members and the industries which employ them. But as trade [illegible] s and as Americans, we consider human beings and human welfare more impor- [illegible] n efficiency. The welfare of our people is an integral part of our econo- [illegible] ess. At the same time, we must recognize that people without jobs, I.E. purchasing p [illegible] cannot provi [illegible] market for the products or services of automated industry.

[illegible] know that there is no self-adjusting labor market mechanism which acts automatically to provide jobs. We believe that it is unjust and anti-social to make workers shoulder the entire burden of "efficiency" or technological change. Rapid and uncontrolled technological change can disrupt the lives of workers and their families and our nation. We must urge that thought be given to programs for reducing the harmful affects of such dynamic growth. We cannot afford to repeat the mistakes of our industrial history. Human costs are involved. No technological change which is at the expense of workers is true technological progress. We cannot afford to sell out human values simply to get more efficiency.

In essence, what we are asking for is a high degree of social responsibility by industry, to weigh the human costs of displacement. Workers' and unions' acceptence of such change is based on assuring workers some degree of employment and income security, and a share in the benefits flowing out of such change -- in a word, to make the transition as painless as possible.

More Respon
to govt,

There is a culturel lag -- in that people resist change. Social and economic progress is not automatic. It is the responsibility of officials in the labor movement to implement changes through our inherently democratic institutions so as to make sure that our people are not hurt. This is our role -- and we cannot and will not shirk it.

It is this apparent conflict between economic efficiency and social justice which our society must solve if we are to avoid economic and social catastrophe. Your Committee is faced with a great challenge. You may count on our good faith and cooperation in doing whatever we can to assist in the solution of this problem.

The Teamsters' Union has cooperated with our employers in achieving efficient operations. Leading spokesmen in our employing industries have stated on many occasions that the Teamsters' Union takes "a realistic and commendable perspective of the values of transportation automation"; that "the leaders of the Teamsters recognize that these restrictive conditions and featherbeds are harmful to the industry. . ."; that the Union "is exercising the judgment of responsible unionism."

We do not resist automation, but we want to cushion its effect on labor. From labor's point of view, we want to reconcile, so far as possible, the continual growth of automatic technology with job security. We wish to alleviate the hardships of those displaced by automation and to protect the employment opportunities, earnings and work conditions of those retained on the job.

## Automation and Unemployment in Selected Teamster-Organized Industries

~~Unlike other unions whose membership is concentrated in one or two industries, the Teamsters cannot easily trace the impact of automation upon unemployment among their members. The reasons are several.~~

~~The diversity of industries in which our union has membership complicates the job of assessing the impact of automation on employment. It is, therefore, difficult to be specific about unemployment.~~

~~Most of our approximately 900 local unions are so-called "general locals"; that is, they organize workers in many industries. Thus, when such local unions report a drop in membership, our International Union has no specific way of knowing the industry or industries in which jobs are declining, or the reasons for such decline.~~

~~Many of our members are in the service area. The delivery of milk, bread, laundry, newspapers, etc. is a 52 week-a-year business. Many of our members work for small firms who have to continue to provide deliveries, regardless of volume.~~

Employment statistics on the trucking industry are not available. In addition, the trucking function is performed not only by motor freight common or contract carriers, but also by virtually every other industry in the American economy. This complicates the problem of determining and assessing the impact of automation on our truck driving membership.

Although our automation unemployment problems may not be as severe and as concentrated as other unions, we nevertheless have our share.

We have attached to this statement three reports describing technological developments in the following industries: trucking; fruit and vegetable canning and preserving; and dairies.

On the basis of the employment and productivity figures shown in these three reports, it is fair to conclude that mechanization and technological advances have outstripped the creation of new jobs. Employment is not increasing to the same extent as the output of these industries.

Increased weight and size of trucks and mechanical equipment has increased the productivity of the individual driver. Years ago a horse and wagon required a 10-hour day to move only 10 tons of earth. Today a driver operating a 10-ton dump truck can move 320 tons of earth in two hours less working time at one-fourth the cost per ton.

In warehousing, the use of electronics, select mechanism, automatic conveyors and automatic loading and unloading equipment have been combined with other advances to make operations at new warehouses largely automatic. Warehousing has been marked by the development of unitized loads, roller and chain bed trucks, wheeled pallet adapters, palletizers, depalletizers, conveyor systems electronic sorting, and a whole area of electronic devices.

Inventory data processing eliminates much of the manual paper work in warehousing and increases the use of machines in record keeping.

The result is fewer jobs.

Automation has permitted present workers in the industry to produce more per employee. At the same time, the greater output or productivity, by permitting the same or fewer workers to produce more, means that the industry does not hire new workers. This produces what might be called the "iceberg" effect -- unemployment which is not attributed to any particular industry but which is generalized. Employment opportunities do not exist for those entering the labor market or for those losing their jobs in other industries. This has been true even in the trucking industry which has shown marked growth over the past few decades -- a growth sufficiently rapid to counteract dimished job opportunities stemming from automation.

A dynamic and effective organizing program has helped to offset Teamster Union membership losses due to technological or automation unemployment. The Teamsters' Union has been the only major trade ~~union~~ which has aggressively kept pace with the giant strides of the American economy since the end of World War II. Other unions and their members have undoubtedly suffered to a far greater extent. We join with them, and with the rest of the American labor movement, in stressing that it is time to take action on several fronts to do something for the victims of automation-created joblessness. Without a sharper rise in jobs than has been taking place in recent years, our unemployment problem may well become a nightmare.

Even the National Association of Manufacturers, in its weekly publication, NAM News, concludes that employment problems will be "severely magnified by automation-enforced occupational shifts." This report adds that the need for production workers "has been decreasing despite higher output because of higher speeds, mechanization and technological improvement." It looks forward to still greater mechanization and displacement.

We should like to present to this Committee a film titled, Wonders of Automation. filmed in California's Imperial and Salinas Valleys. This 25-minute film portrays in vivid color the story of what changes and mechanization have caused in the produce industry.

Shown is the only machine in existence which combines harvesting with processing to send carrots off to makret within ten minutes after they are pulled from the soil. This highly mechanized unit moves at a constant eighth of a mile an hour through a field, gulping carrots at one end and expelling them at the other in cellophane packs -- you find them at any supermarket -- in an incredibly short time. This is a monstrous machine which actually eliminates one complete phase -- the conventional processing installation which normally is a permanent facility located in the nearest community anywhere from five to thirty or more miles from the field being harvested. For the purposes of contrast, the film shows such a permanent processing shed, along with the old way of harvesting

Another phase of the film treats with harvesting and processing of head lettuce. Hand-cutting of the lettuce contrasts with mobile machines which stitch cardboard cartons into which the produce is packed for hauling by truck to the nearest cooling center, located some miles from the field.

Automation really begins at the cooling center where a huge fork-lift, in one speedy maneuver, unloads 320 or more cartons from a truck in a matter of seconds. A network of conveyors within the center eliminates all human manpower except the hands of a half dozen workers in the essential process of chilling the lettuce and loading it into refrigerated trucks or railroad cars to be speeded off to market.

We hope that this film will be helpful and instructive to this Committee and to its staff, in showing the application of technology to some of the industries and operations in which our members are employed. The film also makes clear the many ways in which mechanization is displacing workers.

### National Economic Policies Must Support Collective Bargaining on Automation

Collective Bargaining -- the trade union's tool -- has developed a variety of solutions to automation: greater wage increases; guaranteed employment on a year-round basis; shorter hours with no loss in take-home pay; broader seniority rights including preferential hiring rights for laid-off workers; retraining displaced workers at company expense; dismissal pay; improved pension plans, including earlier retirement and vesting of benefits after relatively short period of service; etc. These collective bargaining provisions constitute, in essence, a form of social cost of automation for industry. They call for a high degree of social responsibility by management.

But these collective bargaining arrangements between a company or an industry and a union are essentially only shock absorbers or stop gaps. They constitute merely the first line of defense against automation unemployment. [illegible]ially they are designed to cope with the problem of "temporary" unemployment, rather than a situation where a man's job literally disappears under automation.

Unfortunately, collective bargaining contract protections cannot create essential job opportunities. Collective bargaining alone cannot cope with the tremendous pressures of automation-induced unemployment. The complexity of the problem calls for an effort beyond that of any single union, or single company, or single industry, or combined labor-management effort.

Labor and management should continue to seek solutions to the labor problems flowing out of automation. But these private solutions, in the final analysis, can only be limited and temporary.

Collective bargaining affects only a fraction of our total economy. Other factors -- tax, monetary credit, and fiscal policy, etc. -- are more far-reaching in their consequences. We must therefore develop a proper national economic and social environment to make the achievements of collective bargaining and labor-management cooperation successful.

Role of Govt.

National full-employment economic policies are called for -- both to generate jobs and to sustain purchasing power. As stated by the editors of *Fortune* earlier this year, "The vital task ahead is one of job creation, and the vital energizing currents here are national not regional in scope."

If technological progress is to be orderly, we must tackle the unemployment problem promptly on a national scale. The national well-being requires it; the continued existence of our present social and economic order demands it. Full employment must be our goal if we are to avoid the nightmare problem of displacement and adjustment created by technological "progress."

This calls for effective implementation of the Employment Act of 1946 so as to provide a constantly expanding economy. We need increased consumer purchasing power to match our growing productive capacity and increased business investment to further create employment and stimulate consumption.

We need allied programs consisting of wage supports, tax measures, training and retraining programs, relocation subsidies, and other security guarantees to technologically displaced workers and their families. But above all, there must be a job at the end of the line for those willing and able to work. Otherwise, the best social insurance systems and retraining and placement resources are of little use. This is why the full employment an expanding economy goal must be the capstone of our national policies.

Serve America While Creating Jobs

In spite of our vaunted American standard of living, there are still millions of American families living on sub-standard incomes. In spite of our vast wealth, the gap between need and fulfillment in the public sector is enormous -- in education, health, slum clearance -- public housing -- metropolitan re-development, and preservation and development of natural resources. When we build school classrooms, hospitals, public housing, and all the other things our people need, private industry will have more business and people will [illegible] full employment.

As a nation, we have to adjust our thinking to an age of abundance, rather than scarcity. And automation helps to supply that abundance. Automation can be used to serve men and to free men. But if workers lose their jobs, or are never hired, because of automation, then the central purpose of our economic activity in a democratic society is defeated. Economic progress must be equated with human needs. For this, we need a constantly expanding economy, to absorb both new workers and those displaced by technical advances. Full employment is the answer!

Workers have a right to a fair share of the fruits of the Nation's expanding productivity, which automation will accelerate. Unless workers' buying power advances as productivity increases, the economy will produce more than consumers can buy. Economic prosperity can be assured only if wages continually rise as the Nation's productive power expands. Without a proper balance between production and consumption, full employment and prosperity are impossible.

Surplus wheat can be stored. Surplus workers -- and this is what automation is creating -- cannot! Our members are not accustomed to eating on a long-run basis. Their bills have to be paid today. They cannot obtain credit on the expectation of a job two years from now. All they know is that their jobs are evaporating and they are left high and dry.

People can't buy unless they work. Industry can't sell its products and services unless people have money. Industry looks to the consumer to keep the economy going. Eliminating people who make a product eliminates the market for that and other products. One cannot produce wealth with machines alone.

Challenge of [illegible]

If we can develop crash programs for missiles and exploration of outer space, we can and must plan to solve the problems flowing out of automation. We must devise and develop tools to wipe out the spectre of chronic unemployment, the sentence of economic death. Our nation faces no challenge so great if we are to maintain the stability of our economy and way of life. If past policies and methods are inapplicable to today's technology, let us devise new ones.

necessary if we are to be able to meet our responsibility as leader of world

Why should we have full employment only in time of war? Certainly in time of peace there is work to be done -- job-providing work -- to improve the

HR 1976

[illegible] of people and the nation. Let us set our sights for abundance, not [illegible]ity. Let us gear our policies for full production, not under-utilization [illegible] capacity and facilities. Let public investment join private enterprise in supplying [illegible] people's needs.

The basic answer to the problems created by automation lies in the prosperity of our country. A booming economy is needed to keep everyone -- except the [illegible] unemployed -- at work. We definitely need to [illegible] up our economy. [illegible] reality of the Employment Act of 1946. If our economy is falter- in[illegible] [illegible] employment problem -- whether automation-created or ot[illegible] [illegible] ineffective.

Lack of Info

I recommend the creation of a National Commission on Automation [illegible]ment [illegible] of representatives of labor, industry, educators and the [illegible] impact of auto[illegible] [illegible] to develop plans [illegible] its [illegible] [illegible]ies, and the nation. [illegible] -range planning, major [illegible] disaster to our human [illegible]

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[illegible]le. As I have [illegible] the entire [illegible] [illegible]lieve [illegible] [illegible]wing measures; [illegible] the very minimum, [illegible]ing and [illegible] insurance coverage [illegible] financial needs of the [illegible]s family; [illegible]ment age under [illegible] Se[illegible]

[illegible]

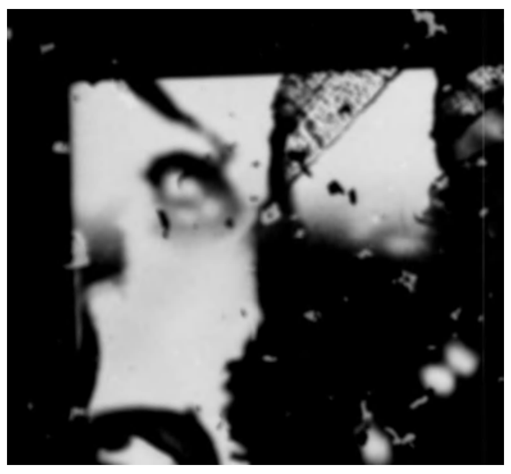
[illegible]ction with our schools and [illegible]urity offices to provide job training for young [illegible]le and for [illegible] displaced by technological change, [illegible] shifting job trends and occupational qualifica-[illegible]

[illegible]s and other security guarantees to workers [illegible]ation of technological changes; [illegible]lic employment service

[illegible]d monetary policies should be reviewed to assure that [illegible]mic growth and job-creating potential.

[illegible]mic policy. We need a massive attack on all aspects [illegible] efforts of government, labor and indus-[illegible] if we are to forestall a nightmare of [illegible] combined [illegible] can develop adequate solutions [illegible]sh the [illegible] will assure [illegible]ase the future [illegible] of our economy.

[illegible] grave respon[illegible] wish you well in this task, and we [illegible]ed cooperation.



INTERNATIONAL BROTHERHOOD
OF TEAMSTERS

## ATTACHMENT A

## AUTOMATION AND EMPLOYMENT TRENDS IN TRUCKING

Technological changes in the trucking industry have taken a variety of forms described below. However, they have not constituted major technological breakthroughs such as have occurred in the mass-production industries or even other transportation industries such as the airline, water carriers and even the railroad industries.

Outwardly, the trucking industry does not seem to have changed much in character, despite its enormous growth. Yet the cumulation of a variety of technological changes have slowed down employment in a rapidly-growing industry and have enabled the present work force to produce more.

The following table shows that trucking employment in the last decade has lagged behind the "industry's output" -- intercity ton miles:

INDEXES OF TON-MILES OF FREIGHT AND EMPLOYMENT IN THE HIGHWAY TRUCKING INDUSTRY, 1949-1959
(1949=100)

| Year | Intercity Ton Miles[1] | Employment[2] |
|---|---|---|
| 1949 | 100 | 100 |
| 1950 | 137 | 110 |
| 1951 | 151 | 122 |
| 1952 | 148 | 127 |
| 1953 | 159 | 134 |
| 1954 | 151 | 133 |
| 1955 | 173 | 143 |
| 1956 | 173 | 151 |
| 1957 | 176 | 154 |
| 1958 | 176 | 150 |
| 1959 | 196 (Est.) | 161 |

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[1] - Intercity ton-miles of Class I, II, and III intercity common and contract motor carriers of property, operating under Interstate Commerce Commission authority.

[2] - Full-time equivalent employees. Full-time equivalent employment measures man-years of full-time employment of wage and salary workers and its equivalent in work performed by part-time workers. Excluded are estimates of employees engaged in public warehousing.

Illustrative technological changes and automation developments in trucking operations are described below.

### 1. Advances in equipment design and construction

To enable truckers to carry longer and heavier hauls, motor carriers and equipment manufacturers have been developing lighter equipment carrying more payload without any boost in the gross maximum weight or length or height of the vehicle

A parallel trend involves changes in the usage of units now available, changes reflected in the 60-foot tandems seen frequently in the West, and in the big 98-foot or more "double bottoms" (two trailers pulled by a single tractor) now authorized in several eastern and mid-western states.

Use of the diesel engine in trucks continues to grow. Ten years ago some 5 percent of all heavy-duty trucks were diesel powered. Now more than 25 percent are so equipped The superior fuel economy of diesels permits the use of more powerful engines, which in turn produce higher daily mileage.

Within the next few years truck engines with double the power of those now on the roads will begin to make their appearance. Since they will be capable of higher sustained speeds along the new Federal highway system, they offer the promise of a dramatic speedup in long-distance truck schedules.

There has been a steady increase in allowable weights and in length of trucks and trailers. In 1956, there were 11 states which limited over-all tractor-semitrailer length to 45 feet and three states imposed a limit of 48 feet. Today, all states allow at least a 50-foot combination, with 33 states at that figure; four allow 56 feet; eleven 60 feet, and three 65 feet or more. In addition, certain toll roads have authorized the use of 98 to 105-foot "double bottom" tandem trailers

In 1948 units of 28-30 feet in length led in van trailers produced (27.5%) In 1960 [illegible] of the trailers were in the 38 to 40-foot category.

Even over the past few months, several states have announced new permissible lengths and weights for their highways. For example, the District of Columbia now allows 40-foot trailers. Kentucky permits 60-foot tractor and semitrailer combinations.

In South Carolina and Michigan, 55-foot combinations are permitted. In Utah, 60-foot units are approved, with permits granted annually to 65-foot rigs. Maximum weights of these units in Utah can go as high as 79,000 lbs. Although Pennsylvania prohibits doubles or tandems, it allows single trailers as long as 60-feet on its turnpike (but only 35 feet off it).

These liberalized limits on weight and length mean bigger and fewer trailers for any given tonnage to be hauled. In the absence of increased volume, this would, of course, adversely affect the jobs of drivers and platform men

An unusual semitrailer has been developed. It has no axle between the rear wheels and can be tipped, tilted, lowered to street level, or raised to the height of platforms up to 52 inches to facilitate loading or unloading. It is reported that this design, not yet in much use, cuts cargo-handling costs 33 percent

A new half-straddle semitrailer has just been put into test use. It can pick up or unload a full-length trailer load of palletized freight in 60 seconds

The use of specially built cargo tanks equipped with conveyors for unloading has become widespread in the transportation of bulk loading in powder or granular form, such as flour, portland cement, and livestock feed.

Brady

## 2. Piggyback and Containerization

A "technological" change of a sort -- namely, coordination of truck shipments with rail, water and air carrier service -- is taking place in the form of "piggyback," "fishyback" and containerization. Such coordination tends to reduce job opportunities for over-the-road or long-line drivers.

Piggyback is the handling of highway trailers or containers on railroad flat cars; fishyback is the handling of such containers on ships. Containerization is essentially pre-packaging freight in van-sized containers, saving handling and packing costs. Under this concept, piggyback is nothing more than treating truck trailers as containers.

Piggyback, fishyback and containerization may be thought of as a "pipeline on wheels," since the system allows door-to-door delivery without breaking bulk between carriers. The container (whether a highway trailer, van or box) is designed to travel with ease on ships, railway flat cars or on the road.

Containerization differs from piggyback which employs truck trailers which are loaded directly from the road onto railroad flat cars. In the newer system, similar trailers are used for containers but the wheels and chassis are detachable and there is no necessity to haul the running gear along with the cargo.

To the extent that piggyback, for example, provides for transport of trailers or containers on railroad flatcars rather than on the highways, many truck drivers formerly operating on intercity runs are displaced. Though piggyback traffic represents at present a small fraction of inter-city freight, it is growing fast. The nation's railroads hauled 500,000 piggyback carloads in 1960. That was 35% above the 1959 figure and 3.3 times the total for as recent a year as 1955.

Piggyback loadings have established new records. Fast, solid piggyback trains, scheduled at speeds close to those of the fastest passenger trains, are accelerating the use of piggyback.

Piggyback and its counterpart, containerization, require less packing and packaging and involve less handling -- another form of automated transfer of cargo. Labor requirements are reduced, thereby affecting workers' earnings and job security.

Docks experience [illegible]

Piggybacking of autos has already cost the jobs of about 15,000 Teamster members engaged in the delivery of new cars from the auto assembly plants to automobile dealers.

The Special Products Division of Moore-Handley Hardware Co., Inc. of Birmingham, has explained how its own containers are used in distributing ice cream for National Dairy Products Corp. in Michigan -- a special case inasmuch as Michigan laws require that a second container in a unit be placed on a four-wheel trailer. (In most States two or more containers are placed on a transport semi-trailer chassis.)

The containers are loaded at the central plant in Kalamazoo with an assortment of 2,500 gals. in each container. The transport train then takes the containers to various cities, dropping one container at a time in, say -- Grand Rapids, Lansing Holland, Jackson, Hillsdale, Benton Harbor and others.

The loaded container is exchanged for an empty at each point, and the standby refrigeration equipment of the loaded unit is plugged into an electrical circuit Sometime later, the local route man will pick up the full container for local delivery.

Carriers of household goods are also pushing the use of containers, especially when families are moving long distances. Van-Pak, Inc., of Des Moines, Iowa, has developed an 8-foot by 8-foot by 7-foot container for rail, truck or ship It uses these containers for its own hauling of household goods and also leases them to other common carriers for other uses.

National Van Lines of Chicago, Illinois is also experimenting with containers that nestle on a special flatbed truck trailer, six to the trailer

The interesting thing which has developed from the transport of household goods in containers moving to and from overseas bases, to and from points and places in the U. S is the Thruliner in which household goods or commercial freight may be packed right in the house or factory. These smaller cardboard containers are then taken to the container stations and fitted into the ocean container in groups of two, three, four, six or eight. The ocean container is then moved by ship to the receiving station overseas, or in the case of inbound traffic, to the station in this country on the Atlantic Coast, Pacific or Gulf Coast, where the ocean container is removed and the separate thruliners are moved to a household goods carrier or linehaul trailer for delivery direct to the consignee's home, factory or store, where the thruliners are unpacked and discarded. This means only one handling at each end. If air transport is used, the thruliner will go direct to the airplane, eliminating the use of the ocean container on foreign shipments

George A. Hormel & Co. sends fresh meat from its Austin, Minnesota packinghouse to customers in Minneapolis-St. Paul by aluminum refrigerator containers; each over-the-road tractor-trailer hauls three containers, and these are conveniently split up among local delivery trucks in the cities.

Along with the containers, which can move right through from point of origin to point of destination with the freight sealed in, new equipment for handling them is making its appearance.

One of the most remarkable in appearance is the self-propelled, vertical lift free-traveling crane developed jointly by Seatrain Lines of New York and Travelift Engineering Co. of Sturgeon Bay, Wisconsin, which is described as the "first switching engine of the trucking industry."

Oddly resembling a spider, on four tall legs, each rolling on an aircraft type tire, it straddles a trailer chassis, lifts the container vertically between its legs, then rumbles off to deposit it elsewhere without the need for rails, special paving or tractor towing power.

Operated by one man, the "spider" can carry 25 tons at 10 miles an hour

Designs for larger items of this type are on the drawing board.

### 3. Road Systems

The Federal-Aid Highway Act of 1956 initiated a new multi-billion dollar highway program. This new system of interstate highways will mean more sustained high speed movement and thus more yearly mileage per truck or tractor-trailer. Combined with the economics of motor vehicle sizes and weights, the National Interstate Highway System should bring with it new standards of highway utilization, moving traffic faster and more safely. The highway construction program is certain to bring substantial benefits to the highway carriers in reduced point-to-point travel time, reduced mileages, fewer accidents, etc. Another benefit, of course, are fewer drivers because of less travel time due to higher average speed.

Backbone of the expanded Federal State highway program is the presently designated 41,000-mile System of Interstate and Defense Highways. The Interstate System joins 42 state capital cities and 90 percent of all cities over 50,000 population It serves 65 percent of the urban and 45 percent of the rural population, and is the key highway network from the standpoint of Federal interest in productivity and national defense. When completed, the 41,000-mile system will represent approximately 1.2 percent of total road mileage but will carry 20 percent of the traffic

The Interstate System will incorporate, as it is built, the most modern techniques of highway construction and design. It will be a controlled access expressway and 95 percent of the presently designated mileage will consist of divided highways of four lanes or more. This mileage, when added to anticipated improvements on other primary highways, will mean that by 1975 we shall have 59,000 miles of divided highway mileage of the most modern design, compared to 11,720 miles of this type facility in use today and 3,573 miles in 1948

An essential part of the new program is the extensive provision for urban highway facilities, which will include by-pass routes around our major cities as well as improved expressways within urban areas. These will mean faster and more efficient movement of intercity traffic with a minimum of delay and congestion.

The national system of interstate highways will help the trucking industry in the long run. Heavy trucks on the road are now greatly retarded in climbing steep hills and working their way through congested traffic of towns and cities. The new highway system will reduce the sharpness of grades and will bypass congested areas. This will reduce wear and maintenance of vehicles. Because of less movement in low gear, it will cut out fuel consumption per ton-mile. By reducing over-the-road time, the new highways will increase mileage per driver-hour and on many runs, will thereby cut labor cost. In intercity trucking, over-the-road costs constitute a much higher portion of the total than is true of railroading, and these savings will be important.

Since the new system is to touch all 48 states, it will provide express highways along routes where they simply don't exist today -- thus opening the opportunity for much faster delivery schedules over longer distances.

The higher average speed possible through extensive use of modern roads and turnpikes enables trucking firms to extend overnight service to more distant points, thus widening their markets, while improving schedules of regular delivery points. The higher speed allows the driver to cover more miles within his hours of service limits.

The combination of improved roads and advances in power equipment have had the effect of increasing the average speed of a motor truck moving down the highway without materially increasing its maximum speed.

Many states are increasing permissible truck speeds to 55 m.p.h. Also, many turnpike roads permit speeds up to 70 m.p.h., which will increase the average miles per hour. With improved highways, the driver will not develop as much fatigue on the new highways as was formerly developed 10 years ago on the then existing highways

A recent report to Congress indicates "that the controlled-access highway is at least 2½ times as safe as the ordinary highway, and in some instances has a fatality rate as low as one-fifth of the national average of all streets and highways." The report adds that "significant savings in travel time and greater convenience in travel are important by-products of highways having full control of access."△

The New York State Thruway on June 1, 1960 established a uniform speed limit of 60 m.p.h. for trucks as well as passenger cars. Tandem trailer or double-bottom rigs will still be limited to a 50-mile maximum speed because specifications for their special brakes, hitches, safety chains and other equipment were based on that top speed.

With better highways and more powerful equipment, more miles can be covered in shorter period of time, enabling the trucker to extend his services. Previously, on given trips, a driver would have to lay over away from home, because he could not complete the round trip to his home terminal without violating the maximum driving time allowable either under law or under the collective bargaining contract. Today, such trips can be operated on a round trip basis -- again reducing the need for drivers.

4. Double Bottom or Tandem Operations

Theeconomies of the new highways will be greater, of course, as new vehicular arrangements emerge designed for new highway conditions. Illustrative of these is the double bottom operation now under way on certain toll roads, in which two semi-trailers are drawn by a single power unit.

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△ - The Federal Role in Highway Safety. 86th Congress, 1st Session. House Document No. 93. March 3, 1959. P. 3, 60.

Tandem, or "double bottom" operations are not new in trucking. They are common in the West. What is new about the latest developments is that these tandems are larger and heavier than others and they involve toll highways.

In most instances, the tractor has less horsepower than the sum of the two it replaces. Partially offsetting the reduction in the number of power units, an additional dolly has to be provided to support one end of the rear semi-trailer. Under these circumstances, the chief operating economies are as follows: labor, fuel, depreciation, interest, and maintenance. While economies will vary widely between operations, a saving of 25 percent, say from 40¢ per trailer-mile down to 30¢, is not unrealistic for operators favorably situated. A significant portion of this saving, of course, is lost by the necessity for supplying tractors and drivers for the short-haul interchange at entrances and exits to the main highway.

The use of "double bottom" tractor-trailer combinations has been authorized on the New York, Massachusetts, Ohio, Kansas, Indiana and Illinois Turnpikes or toll roads. The doubles extend up to 100 ft. overall. And the use of doubles may expand further.

Currently, the Bureau of Public Roads and the American Association of State Highway Officials are studying the possibilities of using double bottoms on federal-aid highways.

Thus far, tests of double-bottom operations have been successful on all thruways and turnpikes where they have been conducted. On the Ohio Turnpike, at least 800 doubles use the artery each month.

What these add up to, of course, is higher productivity -- more tons of freight moved per man and per vehicle. The double size rigs obviously cut labor costs; one driver hauls twice as much. Fuel consumption is less. Time consumed is less. Net savings to the trucker are more than 20 percent per mile.

There are wage savings due to the hauling of a double load with one tractor. [illegible] expedited due to the higher speeds attainable, and the absence of [illegible] lights on the through highways. With fewer stops and starts, wear and [illegible] tires, gears and engines is less.

The Tandem hook-ups enable the truckers to move more payloads per power unit, which is to say per a major slice of invested capital. The customary tractor-trailer combination in New York, for example, is limited to 65,000 pounds, but 120,000 pounds is authorized on the New York State Thruway. Double bottoms, therefore, may well mean doubling truck payloads and reduced operating costs.

Of extreme importance is the fact that if the Thruway vehicles prove themselves and show that vehicles of greater lengths and gross loads are practical and fully compatible with Thruway facilities, then these same vehicles are operational on any highway design similar to the Thruway.

The New York Thruway operations involves the use of break-up points at interchanges to allow the individual units of the combinations to be taken off the state's regular highway system. As individual units of the combinations are loaded to conform with the state's size and weight laws when operated individually, they can be taken to and from the inter-change points with conventional road tractors and operated legally everywhere in the state.

For all the limitations of the double bottom rigs, it should be regarded as only one of a number of possible new vehicular arrangements, some of which will most surely emerge from the novel traffic characteristics of the new highways. The vehicle will certainly adapt itself to the opportunities of the roadway, and regardless of the fate of the double bottom, as such, the economies of the new highway system will probably go well beyond those afforded to vehicles of present [illegible]. For the time being, the engineering of the vehicle has outrun the [illegible] ring of the roadway --- but this is not likely to last.

[illegible] other type of labor saving occurs in reduction of costs, involved in making [illegible] aking tandems or double bottoms at turnpike entrances and exits. The Wolf [illegible] under experiment in Texas, typifies this aspect of labor saving. The Wolf Wagon is a self-propelled van which can be hooked in tandem and by mechanical [illegible] ons, both power plants can be utilized to propel the load carried. This equipment, if proven successful, would eliminate one driver in moving tandem trailer equipment from the terminal make-up area to the turnpike entrance, at which point [illegible] trailers are hooked together and carried over the turnpike to the proper turnpike exit, at which point it is again necessary to break the tandem trailers into two separate units. At entrance and exit then an additional driver is needed.

[illegible] n-tainers" -- two 20-foot trailers which can be combined into a single [illegible] it or used separately -- will be introduced soon. They will allow [illegible] the load for a single tractor at a midway route point.

[illegible] company (Chicago Express, Inc.) has initiated runs between Philadelphia and Chicago over the Pennsylvania, Ohio and Indiana Turnpikes with a truck trailer 60 [illegible] t in length. The van operates on the turnpikes as a single trailer, but the bigger [illegible] can be converted into trailers of 40 and 20 feet. The 40-foot length is usual. It can carry up to 60,000 pounds, compared with around [illegible] a 40-foot unit, has a 3,650 cubic foot capacity as against 2,300 for the standard trailer. Over-all costs, including labor, are lower, on a ton-mile basis because of larger loads per unit.

[illegible] ke the so-called "double bottom," two trailers in tandem behind a single tractor, to which the big van is related, it is designed to enable a carrier to haul more freight payload per power unit and thus reduce line-haul, operating expenses.

5. Terminal and Office Operations

Widespread terminal improvement and mechanization programs have been under way in trucking, designed to expedite the handling of freight across the dock and to reduce the manpower required to handle a given tonnage of freight. These developments have displaced labor and cut employment opportunities for dockmen.

[illegible] feature such labor and damage-saving devices as a mechanized [illegible] chain which pulls wheeled freight containers along an elon[illegible]way in the terminal. The dragline puts truck loading, unloading [illegible] shipment grouping on an assembly line basis. Manual labor is saved. It speeds sorting and eliminates handling. Earlier and more accurate dispatching is achieved. One large company (Consolidated Freightways), by using draglines and other devices instead of hand trucks, raised its system-wide terminal freight handling capacity to 1,682 pounds per man-hour in 1959 from 1,314 pounds in 1956.

At Spector's New York terminal, carts are routed electronically. Platform men don't have to watch cart numbers, since the electronic system automatically [illegible] carts at the right station.

Other improved dock handling techniques include telescoping and mobile conveyors; hoisting trailer to dump bulk materials; overhead hoists; dock-leveling ramps; inclined tracks, pre-loaded carts.

Mechanical handling techniques are mushrooming at motor carrier terminals. Illustrations are cited below:

1. An electrically controlled retractable belt conveyor shoots cartons right into the truck, saving time and effort. When connected with terminal or warehouse conveyors, the loading operation becomes almost automatic. The telescoping conveyor is especially effective for nonpalletized goods, or where

pallets are impractical.

2. A pushbutton loading ramp moves up, down and out to match ever-changing tailgate heights and custom-fits the truck to the dock, forming a bridge between truck beds and terminal floors.
3. An overhead traveling hoist makes loading a one-man job and ends loading bottlenecks.
4. A pushbutton mobile conveyor sends a full truckload into the warehouse. Truckloads of eggs move from truck to warehouse in less than 5 minutes at Poultry Producers of Central California, San Leandro, by means of a powered winch conveyor that moves alleways on rails, up and down the dock.
5. Gravity pulls a pallet right into a truck or trailer through a gravity-roller system operated by one man. Used with pre-assembled loads, this technique loads a 1,730 cubic foot trailer in 30 seconds. Roller conveyors extend out of the warehouse, across docks, to truck doors. Each truck deck is also fitted with roller conveyors. Furniture packed in containers, rides or simple plywood pallets which, with a slight push, roll into the truck.

A new 52-door terminal in Brooklyn, N. Y., features a dual, semi-automatic freight [illegible] system.

Inside this 361 by 97-foot dock area are two almost concentric mechanical tow lines, capable of handling 460 carts. The outer line conveys shipments from receiving doors to a control center through which all freight passes. The system differs from other operations in that the inner (or shunt) line "almost thinks for itself."

From the control center a control clerk can direct a switch cart to proceed on the shunt line directly and accurately to any of 32 doors in the terminal for loading or unloading. If the control clerk so instructed, the switch cart would proceed to an assembly area to wait until a trailer was ready for its shipment. The emphasis is on simple, dependable and tested mechanical principles. Inclining floors were used in strategic places, resulting in movement of switch carts by the force of gravity.

In operation, the outer line conveys each switch cart from unloading doors to the control center. There, a clerk checks the cart for number of pieces and destination. He then dials a door number of a countdown unit located waisthigh on each of the switch carts. This initiates one of the terminal's important innovations.

If a designated door is ready for shipment, the clerk engages the switch cart in the shunt line. For each door, there is one ridge adjacent to the line. Each ridge counts down one number. If door #10 had been dialed, there would be one click in the countdown device for each door the switch cart passed. At the tenth click, the cart has arrived at door #10 The cart automatically disengages itself from the line, and turns onto one of the spur lines for unloading. There are three spurs at each of 32 doors.

When a trailer headed for the shipment destination is not available at the time the switch cart reached the control center, then the control clerk would not send the cart directly to a door.

Instead, the clerk would still dial the door number, but would engage the cart in another part of the shunt line for towing to the assembly area. An electrical "memory" device operated by the control man guides the switch cart in this area.

In the assembly area, the switch carts may be on any of 19 lines, each of which has room for 12 carts. These lines slope gently toward, and are connected to, the shunt line, but a pin placed in the floor prevents them from entering. When the appropriate trailer is ready, the pin is released, and the switch carts roll onto the line and proceed to the dialed door. The lines move at 100 feet a minute. .

Three control clerks can work in the control center at peak periods and allow three times as much freight to be handled.

A scale incorporated into the shunt line system weighs each switch cart immediately at the control center, recording the weight on a special tape. This helps insure quality control over the servicing of customers' freight by permitting a cross check of scaled weight and billed weight, thus minimizing possibility of shortages or overages.

At the 20 of the 52 doors of the terminal that are not serviced by the shunt system, "odd" freight is handled. An odd freight area, for freight that cannot be handled on switch carts because of unusual shape or size, is adjacent to the control center. This area also provides space and facilities for handling "problem" or "special" shipments, such as "rush," "red label" and "hold for pick-up" and so on. Fork lift truck and four-wheel carts are available for special types of freight. The shunt line, however, handles 90 percent of the shipments.

Because of the shunt line system, it is not necessary that there be in-bound and outbound sides of the terminal, as is conventional in other terminal operations.

As a tractor-trailer combination prepares to leave the area, its axle weights are recorded both at the scale and in the terminal dispatch office.

Another large terminal just outside Chicago (Olson Transportation Co.) has a dock which permits loading or unloading of 150 trucks simultaneously. Designed to handle six million pounds of freight per day, the dock contains a freight car conveyor, which completes a circuit of the dock in a continuous movement every 12 minutes. Among other handling equipment are a mechanized barrel handling apparatus, fork lift trucks for all load sizes, and overhead cranes

An automatic truck scale allows a driver to weigh without leaving his cab. A green light indicates when to pull ahead to weigh each axle. The driver leaves his truck only once instead of the usual three times. His scale ticket is picked up at a computer 150 feet from the scale, leaving the scale free for the next truck. At the computer location there will be an electronic telescriber system constantly transmitting instructions to the men who shuttle equipment between the dock and the yard.

Automatic dockboards speed backing to the dock, and allow safer unloading. A network of pneumatic tubes will relay the freight bills.

Using closed-circuit TV as an operational tool, the chief dispatcher at Tele Transport Corp. uses 10 TV monitor screens and a public address system to direct loading and unloading of 200 to 300 trucks nightly at one terminal.

A well-known grocery chain is using high-spped electronic computers to simplify truckloading, that is, to load goods in the reverse order of delivery stops. The computers prepare invoices that indicate the sequence in which the goods ordered by individual stores are to be placed on the delivery truck. This means a quick turn-around for the trailer.

Truckers are now turning to automated and electronic data processing to handle billing and related activities.

The trucking industry long has been confronted with an almost overwhelming volume of paperwork that must be performed within tight time limits. One company, for example, (Norwalk Truck Lines) has upwards of 10,000 freight bills alone to process daily and a large number of customer collections to complete in a like period of time.

Consequently, some truck lines have installed electronic computers in their offices, to relieve clerical problems and handle paperwork volume. Computers are used for revenue accounting -- processing and keeping track of accounts receivable as well as interline accounts payable.

While performing revenue accounting, these electronic systems also produce such management control data as quality and quantity of freight handled; outbound and inbound statistics; quantity balance; etc. Other computer applications include payroll processing, maintenance of personnel records, maintenance and operating cost processing and control, preparation of various regulatory reports, etc.

One large motor carrier has installed a new billing technique which cuts billing costs in half yet prepares bills at high speed with greater accuracy. The new technique differs from the present system in the manner of copying information from bill of lading onto the freight bill after the rate clerk has entered the charges.

Under today's typical setup, a billing clerk does the copying onto a 6 - 10 part freight bill set. This typing is usually done at night, under pressure, with the average clerk typing 50-70 an hour. And a 25% error factor is not unusual. This same procedure is repeated often because 30 percent of all shipments involve a second carrier, and often a third.

However, the new system combines the two basic transportation documents -- a bill of lading and a freight bill. The shipper's original writing is used for all operations, including billing and interlining. Instead of a battery of billing clerks, there is one duplicator operator. First, the operator uses an Addressograph machine to enter the "pro" (progressive) number as well as carrier and terminal location on the "master." Then, the combined bill of lading and freig[illegible] bill "master" is duplicated in black-on-white. Copies are made in any quantity up to 400 per hour. With one turn of a handle, up to 10 copies roll out.

The use of electronics has been expanded greatly. For several years, two-way radio service has been used to a limited extent to provide communications between terminals and the vehicles along intercity highways. The use of radio for dispatching in pickup and delivery service in metropolitan areas, however, was not authorized until 1955. Since then, additional frequencies have been allocated, and there was a trend toward greater use of two-way radio communication in local service. The use of radio in intercity operations also increased. There were 1,520 interurban base stations in early 1959, compared to 375 at the end of 1955, and approximately 34,091 mobile radio units in service at the beginning of 1959, compared to 10,500 at the beginning of 1956.

Radios in tractor cabs allow constant direct contact between drivers and dispatchers, thus further improving the flexibility of operations and availability of equipment, with a consequent better service to customers and saving in vehicle and man hours. Dispatchers, through use of short-wave radios, control the driver's movements and thus cut down on layover time and "deadheading" -- returning an empty truck from a city where it has delivered a load.

Some carriers are putting in direct telephone communication between terminals to expedite space reservations and dispatching. District terminals are given earlier advance notice of trailers enroute to them, thus enabling them to plan for next morning arrivals.

6. Truck Maintenance

Electronics is now in process of being applied to truck maintenance and repair. An electronic digital computer is now available to take the guesswork out of vehicle diagnosis and repair. The computer can determine not only which individual part in a complete power unit is defective, but approximately how long it is safe to keep the unit containing it in service before it will fail. This prediction can be made just three mintues after the vehicle has been hooked up. Without removing or disassembling any unit, the computer interrogates the vehicle with a number of sensing elements called transducers and then uses logic, in much the same manner as a skilled mechanic would, to diagnose specific mechanical failings. The system is so thorough that it can pinpoint a single bearing, gear or cylinder as the potential trouble source. Then it prints this information on a card which tells the mechanic just what's wrong.

The computer is not limited to engine, transmission or rear-axle analyses as are lubricant sample testing techniques. The computer can check out electrical, fuel, and braking systems as well. Suspension tests and metal fatigue measurements are also possible.

The impact of such equipment on job opportunities for truck mechanics is obvious.

Summary

The changes in methods and techniques described above have already had a significant impact on productivity in the trucking industry and on employment. The continued growth of the trucking industry has minimized the adverse consequences of such changes on employment and job security of the industry's employees.

It is also possible, however, that the trucking business may undergo a considerable expansion without a corresponding increase in driver employment. State limitations on truck weight, size and speed are being liberalized as a result of the construction of better highways. The movement of bigger loads at higher average speeds could result in a need for fewer drivers than would otherwise be required to move the tremendous increase of over-the-road tonnage anticipated during the 1960's.

More and more fork lifts and trucks equipped with power tail gates that can be raised or lowered to platform or ground level replace manpower in the loading and unloading of vehicles and reduce the time needed by each driver to make his deliveries.

As indicated above, piggyback traffic, although relatively small at present is growing rapidly. Such increased traffic is, in most instances, at the expense of over-the-road truck operations, and means fewer loads driven long distances by drivers.

There is a counterbalancing force, however, which affects drivers' employment opportunities, since under piggyback, more men are needed in the loading and unloading operation at the piggyback terminal.

In addition, the motor common carrier will have to provide local drivers to shuttle trailers between the motor carriers' docks and the piggyback terminal. Thus, two new types of jobs will be created: the terminal loader and the city shuttle driver.

* * * * *

International Brotherhood
of
Teamsters

## ATTACHMENT B

## AUTOMATION AND EMPLOYMENT TRENDS
## IN THE
## FRUIT AND VEGETABLE
## CANNING INDUSTRY

The canning industry was one of the first to utilize the principle of automation. The industry today is one of the most highly mechanized of all American industries.

Automatic box dumpers, pallet handling with fork lift trucks, high speed fillers, continuous cookers, and automatic case fillers are but a few of the materials handling and labor saving devices that have been developed.

Automatic unloading is done at speeds up to 2,000 cans per minute for the small can sizes.

Since vertical retorts remain the most widely used equipment for the heat processing of canned foods, equipment has been worked out for loading and unloading the crates automatically.

Warehousing has similarly been mechanized with cases being palletized for lift-truck stacking. One installation has automatic palletizers to which the sealed cases are conveyed from one or more high speed lines.

New can closing equipment has been developed. Very high speed multiple-head (8 & 10 station) closing machines have been perfected for high speed lines. These operate as fast as 1,000 cans per minute on small and medium size cans.

Present-day machines permit fruits and vegetables to pass virtually untouched from field into the can. Pits of peaches and apricots are cut out mechanically, cores of apples are removed, and their skins peeled by machines.

Technological improvements in the canning industry have introduced increased cannery case-yield per ton for some products.

To insure fast handling of the crop, harvesting and packing are synchronised in a program in which mechanical picking is paced at an average of 1½ hours ahead of processing. A mechanized picker harvests five tons of corn per hour.

The degree of mechanisation in food processing can be illustrated by a simple statistic: In one three-shift 21-hour day during the 1960 season, the Stayton Canning Co., Stayton. Ore., processed 400,000 lbs. of frozen corn, in addition to the day's canned pack.

The Libby-McNeil & Libby peach cannery at Gridley, in California's "peach bowl" has mechanized its receiving, preparation and processing departments to handle peaches at a rate better than a ton a minute. This means that when operations are at capacity, more than one hundred peaches go into cans every second of the working day.

At the Campbell Soup Company's Sacramento (Calif.) plant organised by Teamsters Local 228, the plant's work force has been cut from 1,800 to 1,150 in the past two years by mechanisation - automatic stacking machines, meat-[illegible]ecking machines, and large lift devices able to handle 200 to 250 boxes at a time.

In June 1958, Mr. Edward E. Burns, President of the National Canners Association reported;

> "Commercial food canners have increased their output per man-hour twice as much as other industries in the past decade." For canners, it is 50 percent against 25 percent for industry as a whole, he stated.

In 1958, output in canning, preserving & freezing increased by about 40 percent over 1947. During this same period, production worker employment declined by 12 percent. (Table 1)

In 1958, output per man-hour in this industry (for production workers only) was up about 60% above the industry level of 1947.

[illegible] the decline in employment while production, in [illegible]ases, increases from year to year.

[illegible] data in Tables I & II relate to the canning industry in the United [illegible]. In California - the leading state for fruit & vegetable canning - [illegible] trend is even more startling. From 1950 to 1959, production workers increased 10%, while average hours worked remained virtually unchanged. Production, however, increased 82% (Table 3).

Not all of the increase in output per worker in food processing (or the decline in number of workers needed per unit of output) was due to automation. However, this is largely just a question of definition. When automation is defined very simply as the displacing of a worker's effort with the use of machinery, then there is no question remaining that automation is by far the most significant, if not the only factor involved.

If the above changes in output per man hour had not been accompanied in the 1950's with increased production demands related to the population expansion, the results might have been disastrous to many of the local unions in the cannery division. However, increased production has not been sufficient to prevent a decline in Teamster employment in food processing, because of the overpowering significance of the automation trend and the consequent productivity increases which are behind the output per man hour statistics.

## TABLE 1

### Canning, Preserving and Freezing: Output, man-hours, and output per man-hour - 1947 - 58

(Indexes, 1947 = 100)

| Year | Output | Employment | | Production Worker Man-hours | Output per - | | |
|---|---|---|---|---|---|---|---|
| | | All Employees | Production Workers | | Employee | Production Worker | Production Worker Man-Hour |
| 1947 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1948 | 98.9 | 100.4 | 99.6 | 95.8 | 98.5 | 99.3 | 103.2 |
| 1949 | 102.2 | 95.3 | 93.8 | 91.7 | 107.2 | 109.0 | 111.5 |
| 1950 | 109.3 | 94.9 | 93.3 | 92.4 | 115.2 | 117.1 | 118.3 |
| 1951 | 124.0 | 98.2 | 96.9 | 97.6 | 126.3 | 128.0 | 127.0 |
| 1952 | 119.2 | 95.8 | 93.9 | 93.0 | 124.4 | 126.9 | 128.2 |
| 1953 | 125.1 | 100.3 | 98.2 | 96.8 | 124.7 | 127.4 | 129.2 |
| 1954 | 126.4 | 94.7 | 92.6 | 90.3 | 133.5 | 136.5 | 140.0 |
| 1955 | 131.9 | 95.7 | 93.2 | 90.8 | 137.8 | 141.5 | 143.3 |
| 1956 | 147.5 | 98.2 | 95.6 | 95.2 | 150.2 | 154.3 | 154.9 |
| 1957 | 141.4 | 93.0 | 89.1 | 87.5 | 152.0 | 158.7 | 161.6 |
| 1958/1 | 139.2 | 92.8 | 88.6 | 88.3 | 150.0 | 157.1 | 157.6 |

/1 Preliminary

Source: U. S. Department of Labor, Bureau of Labor Statistics

## TABLE 2

## CANNING AND PRESERVING

| Year | Employees (in thousands) | Production Workers (in thousands) | Canned Food Production (Millions of Standard Cases) |
|---|---|---|---|
| 1950 | 225.5 | 196.6 | 495 |
| 1951 | 233.3 | 204.2 | 539 |
| 1952 | 227.6 | 197.9 | 526 |
| 1953 | 238.2 | 207.2 | 536 |
| 1954 | 225.0 | 195.1 | 518 |
| 1955 | 227.4 | 196.3 | 542 |
| 1956 | 233.3 | 201.5 | 618 |
| 1957 | 220.8 | 187.7 | 567 |
| 1958 | 220.4 | 186.6 | 589 |
| 1959 | 223.0 | 189.2 | 586 |
| 1960 | 227.6 | 192.7 | 600 (annual est.) |

Source: Bureau of Labor Statistics; National Canners Association.

## TABLE 3

### Indexes of Employment and Hours Worked of Production Workers and Output in the Fruit & Vegetable Canning and Preserving Industry in California, 1950 - 1959

(1950 = 100)

| Year | Average Number of Production Workers | Average Hours Per Week | Total Cases |
|---|---|---|---|
| 1950 | 100 | 100 | 100 |
| 1951 | 117.3 | 103.8 | 147.3 |
| 1952 | 113.5 | 102.3 | 131.4 |
| 1953 | 111.8 | 98.5 | 124 |
| 1954 | 102.9 | 98.5 | 130.4 |
| 1955 | 109.7 | 99.7 | 164.2 |
| 1956 | 119.7 | 104.5 | 190.9 |
| 1957 | 111.1 | 101.3 | 164 |
| 1958 | 107.6 | 100.8 | 172.9 |
| 1959 | 110 | 100.3 | 181.9 |

Source: Canner/Packer Annual Yearbooks

[illegible] Brotherhood

# ATTACHMENT C

# AUTOMATION AND EMPLOYMENT TRENDS

# IN THE

# DAIRY INDUSTRY

Many dairies are making extensive use of automated machinery This applies not only to the large national chains but to medium-sized, regional [illegible]es

In the dairy industry, technological discoveries are being applied [illegible]ly at all stages in production, transportation, processing and distribution of milk and its products Like a chain reaction they affect the character and organization of the entire industry, with an adverse impact on employment opportunities for workers in the industry A rapidly increasing population and growing urbanization have encouraged investment in plant and equipment which have displaced manpower

Larger fluid milk plants have decreased unit labor inputs heavily by high-temperature short-time pasteurizing, automatic handling of packaged milk, and in-place cleaning

The International Brotherhood of Teamsters is by far the dominant union in milk processing and distribution, and its membership in this industry, over the past decade, had declined due to increased mechanization and similar changes in distribution and operation (SEE TABLE I ATTACHED) Employment has dropped by 25 to 30 percent in the last 10 years, while the volume of milk moving into commercial channels for processing has increased by 17 percent

Present day plants feature more and better automation: integrated processing systems -- simplified instrumentation -- packaging and handling innovations -- move convenient and flexible cleaning systems. There has been renewed emphasis on continuous product movement and a trend toward the integration of automated components into continuous processing.

Automation is becoming feasible for the small processor in the form of miniaturized instruments units and packaged control devices.

In processing, the new technology has been remarkably successful reducing labor requirements. As an example, one dairy product plant ling over 1.5 million pounds of whole milk daily requires only 9 men perate its plant 24 hours daily. Its products include ice cream mix, cream, nonfat dry milk, and condensed skim. In the flush season, a ontinuous churn makes sweet butter which is stored for ice cream making. Pushbuttons control the metering of ingredients by electric pumps. This lant receives bulk milk and moves its liquid product in bulk tanks. Ice am making now can be completely automated, thanks to the development the continuous freezer, packaging equipment, and hardening tunnel.

A new automated milk plant operated by Stop and Shop Stores of on, Massachusetts is run by six men. These six men handle the entire ion -- from receiving to loadout including the operation of the thr fillers which consist of two half gallon and one quart machine.

Decline in number of plants. -- The number of fluid milk plants en declining since the 1930's, and volume per plant has increased. U. S. Department of Agriculture study of 80 fluid milk firms shows that between 1952 and 1959 the annual volume of large plants rose 34 percent medium-size plants 57 percent, and smaller plants 37 percent. Much of this ase came from absorbing volume from plants which have gone out of business. Preliminary data from the 1958 Census of Manufactures indicate a 5-percent decline since 1954 in the number of fluid milk establishments having 20 or more employees. This change suggests a sharper decline in the number of smaller plants.

The drop in numbers of dairy manufacturing plants, which is more dramatic, has been hastened by the change from processing farm-separated cream to whole milk. Between 1939 and 1958 the number of plants reporting butter production fell 58 percent, American cheese, 51 percent, evaporated milk, 45 percent, wholesale ice cream, 37 percent. Only nonfat dry milk plants increased in number -- 76 percent. In the same period, average production reported per plant increased 87 percent for butter, 271 percent for American cheese, 94 percent for evaporated milk, 248 percent for wholesale ice cream, and 263 percent for nonfat dry milk (human food). This trend is expected to continue.

Improved roads, trucks, refrigeration, and equipment make it possible to preserve the quality of milk during a haul of 1,000 miles or longer.

Centralized Milk Processing. -- Developments in the distribution of fluid milk are more extensive than those in the distribution of manufactured products. [illegible] current trend toward large plants is centralizing fluid milk processing. [redacted]ge volume plants in the perimeter of city areas serve fringe areas [illegible] markets in addition to the central city market. From these [illegible] move milk to wholesale outlets --- stores, institutions, and [illegible]. Semitrailers haul milk to distribution centers strategically [illegible] service home delivery routes, either local or at distant points, and [illegible] distant wholesale stops.

[illegible] to this change from local to area plants has been the [illegible] ity of [illegible]ts to incorporate new technology into their processing [illegible] lower costs.

Shift from [illegible] Deli[illegible] Store Sales. -- The shift from home delivery to store [illegible] -- [illegible] the most noteworthy change in fluid milk distribut[illegible] still [illegible]ing. A study of 80 representative milk distributors [illegible] that [illegible] wholesale sales grew from 58 percent to 63 percent of [illegible] sales [illegible] 1956 to 1959. While the grocery store has become [illegible] wholesale outlet, less conventional ways of selling m[illegible] importance. The number of dairy stores has grown [illegible] numerous in the Western states. Vending machines [illegible] number since 1955. On January 1, 1960, 43,700 indoor mi[illegible] and 34,700 ice cream vending machines were reported. [illegible] 59 [illegible] 81 million of milk and dairy products.

But the [illegible] to[illegible] sales has slowed up. Some consumers want some deli[illegible] [illegible]ice will continue. To this end, firms are ende[illegible] to [illegible] of home delivery routes. In most markets, freq[illegible] del[illegible] declined from daily to three-time weekly, and in some [illegible] week delivery is found. Definitely, the trend is toward [illegible]. With concentrated milk, perhaps weekly deliveries [illegible] found feasible.

Ice cream m[illegible] in lar[illegible] plants now can be a completely automated operation[illegible] [illegible]cializ[illegible] plants are making an increasing proportion of frozen [illegible]ucts.

Notable labor[illegible] [illegible]ess has taken place in ice cream plants which now utilize automatic boxing machines and devices for handling and wrapping. Automatic [illegible]iding and unloading hardening chambers are making their appearance, of[illegible]ing a fresh approach to handling. One machine automatically opens, [illegible]is and seals cylindrical half gallons of ice cream.

casing, cartoning, wrapping and bundling devices are increasingly used.

An electronic brain computer coupled with automatic controls, has enabled the H [illegible] d and Sons plant in Boston, Massachusetts to boost ice cream output from 1,300 to 2,500 gallons per hour and reduced labor requirements from nine to two men. An analog computer determines the recipes for ice cream. The unit determines the correct ingredients to provide a set proportion of butterfat and milk solids. From the content of the day's ingredients, the computer produces a coding [illegible] card which is then interpreted into a series of valve adjustments that regulate the flow of ingredients from storage to blending tanks.

Mechanization also applies to material handling as well as to milk production. For [illegible] cases of empty bottles are placed by a machine, one at a time, onto a conveyor, which takes them to a place where they are unloaded and bottles are fed into a washing machine. When they emerge, they flow onto a production line where they are filled and capped automatically, then collected and loaded by machine into waiting cases. (Stacked six feet high, they are slid onto the loading platform, ready for truck delivery. Paper containers for store delivery are handled in a similar manner. Once the day's production is out of the way, a clean-in-place system takes over to wash down the machinery.

A West Coast frozen food distribution plant handles 2,500 cases per hour from storage to trucks semi-automatically. (Peak performance is 3,500 cases per hour under ideal conditions). Volume merchandise stocked by this firm is touched only once by human hands from its reception at truck and rail docks until it is loaded for store delivery in refrigerated trailers.

Pipeline cleaning [illegible] been completely automated. The entire cleanup of the plant can now be [illegible] and with the use of liquid cleaners the need for human service [illegible] reduced to a bare minimum.

In one independent [illegible] making sour cream, two men were producing an average of 120 cans per [illegible] (8 hr.), with additional labor for cleanup. Through develop[illegible] a semi-continuous process, three men process 250 cans of sour cr[illegible] have enough time to clean the equipment in the standard [illegible] shift. On this score alone, a substantial [illegible] is reali[illegible]

Auto[illegible] systems control the entire cleaning cycle. The [illegible] a [illegible] program timer which electronically controls the [illegible] cleaning cycle, operates pumps and automatic valves, [illegible] concentration and gives energy to the temperature contro[illegible]

## TABLE I

## DAIRY PRODUCTS -- EMPLOYMENT AND OUTPUT

| YEAR | EMPLOYEES | PRODUCTION WORKERS | AMOUNT OF MILK SOLD TO PLANTS AND DEALERS | | |
|---|---|---|---|---|---|
| | (In Thousands) | | Total | Whole Milk | Farm Skimmed Cream |
| | | | (Millions of pounds) | | |
| 1960 | 95.2 | 64.0 | --- | --- | --- |
| 1959 | 96.8 | 65.5 | 110,493 | 100736(p) | 9757 (p) |
| 1958 | [illegible] | 66.7 | 110,115 | 99565 | 10550 |
| 1957 | 104.9 | 69.6 | 110,284 | 98378 | 11906 |
| 1956 | 108.7 | 72.1 | 108,840 | 95362 | 13478 |
| 1955 | 112.7 | 74.9 | 105,616 | 90801 | 14815 |
| 1954 | 116.6 | 77.6 | 103,784 | 87874 | 15910 |
| 1953 | 118.2 | 80.4 | 100,901 | 84567 | 16334 |
| 1952 | 119.9 | 82.7 | 94,154 | 77301 | 16853 |
| 1951 | 124.5 | 86.8 | 93,010 | 74480 | 18530 |
| 1950 | 124.9 | 90.3 | 94.413 | 74205 | 20208 |

SOURCE: Bureau of Labor Statistics, U. S. Department of Labor;
U. S. Department of Agriculture,
Agricultural Marketing Service